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POLYTHERAPY IN NURSING HOME

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BACKGROUND: By polytherapy we mean the simultaneous assumption of 5 or more drugs. The condition of polytherapy is quite common amongst elderly patients, particularly the hospitalized ones, and this is a risk factor under many points of view.

AIM: This project aims to analyze the prevalence of polypharmacological therapies in every nursing home in our province, Imperia. We want to verify the average quantity of drugs that patients take on a daily basis. Furthermore, we want to determine the quantity of drugs that belong to two distinct areas: psychiatric drugs and occasional drugs only given in case of strict necessity.

METHODS: The research has been done in every nursing home of the province, and the details result from collecting every single patient's therapy card in 29 care facilities and day-time elderly care centers in 19 different municipalities. We received and analyzed 1971 therapy cards, 69% of them belonged to women and 31% belonged to men. The average age of this population is 84 years old.

RESULTS: Every elderly has, on average, 9.1 drugs in their therapy card, and this quantity largely exceeds the quantity of 5 that is usually considered as a threshold of politherapy. 81% of them had a pshychiatric drug in their therapy, while 68% has at least one drug prescription for a drug that's meant to be used only in case of necessity. Almost the whole elderly population we analyzed takes drugs (99.9%).

CONCLUSIONS: This research leads to some intentions: i) Except from the quantity aspect, it is necessary to evaluate the quality one too (*e.g.* usefulness of some therapies, possible interactions, ecc.); ii) Plan training projects for the nursing home staff, aiming to ensure appropriateness of drug therapies, limiting them; iii) Verify afterwards the result of these measures.

HIGH-FLOW NASAL CANNULA OXYGEN THERAPY IN OLDER PATIENTS WITH SEVERE ACUTE RESPIRATORY FAILURE: A CONSECUTIVE CASE-SERIES FROM AN ACUTE GERIATRIC UNIT

Andrea Arone[1], Roberto Ricchio[2], Olga Cuccurullo[2], Massimo Rizzo[2], Eugenio Borrelli[2], Filippo Fimognari[2]

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BACKGROUND: Acute respiratory failure is a growing cause of hospitalization amongst older patients and is usually treated by conventional oxygen therapy (COT) or non-invasive ventilation (NIV). High-flow nasal cannula (HFNC) oxygen therapy delivers a very high flow of heated and humidified oxygen through a nasal cannula and is widely used in intensive care settings.

AIM: To describe our real-world experience of HFNC use in a non-intensive geriatric setting.

METHODS: Case-series of the first 18 consecutive patients (mean age: 83.3±4.9 years) treated with HFNC in an acute geriatric unit after failure in improving patients' oxygenation of initial NIV or COT. We analyzed changes in partial pressure of oxygen (pO2)/fraction of inspired oxygen (FiO2) ratio, pH and carbone dioxide partial pressure before and after applying HFNC.

RESULTS: The baseline pO2/FiO2 ratio was 103.8±32.7 and increased to 154.6±48 ($p<0.05$) after starting HFNC, with unchanged carbone dioxide levels and significant increase in pH. Nine of the18 patients were discharged alive (positive outcome) and 9 had a negative outcome (8 died and 1 was moved to the intensive care unit). Seven patients with negative outcome (77%) were treated with NIV before starting HFNC, compared to 3 patients (33%) with positive outcome. After applying HFNC, pO2/FiO2 significantly increased also in the 10 patients previously treated with NIV, but only 3 of such patients survived, compared with 7 survivors among the 8 patients pre-treated with COT.

CONCLUSIONS: HFNC improved oxygenation more than COT or NIV in patients admitted to a geriatric unit for severe acute respiratory failure, but did not appear to influence clinical outcomes. Further studies are needed for determining the potential of HFNC in acute care geriatric settings.

THE EVOLUTION OF NON-VALVULAR ATRIAL FIBRILLATION THERAPY IN A HOSPITALIZED POPULATION OF ELDERLY PATIENTS

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INTRODUCTION: Oral anticoagulant therapy is the treatment of choice in primary and secondary stroke prevention in patients with atrial fibrillation. The advent of direct oral anticoagulants (DOAC) could ensure better adherence to therapy, expand the treated population and reduce bleeding, especially intracerebral ones.

PURPOSE OF THE STUDY: The aim of our study was to verify how the therapy for FANV was modified over the years in a population of hospitalized elderly subjects with FANV.

MATERIALS AND METHODS: A retrospective analysis of the medical records (yrs 2011, 2015 and 2018) of patients with FANV hospitalized for any cause in Geriatric Unit, was performed.

RESULTS: Year 2012: FANV 151 subjects (68M, 83F) equal to 14% of all admissions. Year 2015 FANV 216 pts (88M, 128F) equal to 22.6% of all admissions. Year 2018 (first two months) FANV 31 pc (10M, 21F) equal to 21.8% of all admissions CHADsVASC=4.5, HAS-BLED 2.3 The therapy for FANV was distributed as follows:Year 2012 Warfarin 43.0%Year 2015 Warfarin 34.7%; DOAC: 8.3% apixaban, 5.5% dabigatran, 3.2% rivaroxabanYear 2018 Warfarin 29.0%; DOAC: 13.0% apixaban, 6.5% dabigatran, 3.2% rivaroxaban.

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CONCLUSIONS: The geriatric subject is at high thromboembolic risk and at intermediate risk of bleeding. In our sample, we have witnessed, over the years, an increase in the use of DOAC (+5.7% compared to 2015) and a consensual reduction in the use of Warfarin. However, 48% subjects do not follow adequate therapy for the FANV, according to GL, despite being at high risk of VTE. The frailty and presence of comorbility of the elderly subject could be a determinant of the non-prescription of anticoagulant therapy.

IMPACT OF SEVERE COGNITIVE IMPAIRMENT ON PROGNOSIS AND TREATMENT OUTCOMES OF ATRIAL FIBRILLATION: A FIVE YEAR EXPERIENCE AMONG HOSPITALIZED ELDERLY PATIENTS

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INTRODUCTION: Cognitive impairment is a frequent comorbidity among elderly patients with atrial fibrillation (AF) and raises legitimate questions about the best treatment option for thromboembolic prophylaxis.

AIM: To study the impact of cognitive impairment on overall prognosis and on efficacy and safety of antithrombotic therapy among elderly patients discharged with a diagnosis of AF.

METHODS: Survival and Emergency Department accesses for major bleeding and thromboembolic events were retrospectively reviewed in cohort of AF patients who were discharged from 2012 and 2016 and underwent Mini Mental State Examination (MMSE) during in-hospital stay.

RESULTS: 954 patients were discharged with a diagnosis of AF. Of these, 871 (91%) were evaluated through MMSE. Patients with MMSE?15 and those with MMSE>15 had a 1-year mortality respectively of 58% and 30% (log rank test p-value<0.001). MMSE score was an independent predictor of survival in an age and sex adjusted Cox model (p-value<0.001). Patients with MMSE ? 15 (n=132) were most commonly discharged on antiplatelet therapy (63%), while 11% received anticoagulants and 25% no prophylactic therapy at all. Mean HAS-BLED and CHA2DS2VASc scores were respectively 1.7, 2.1, 1.8 and 4.8, 4.7, 3.9. After discharge we registered 7 embolic events among patients on antiplatelet therapy and 5 among patients receiving no therapy (respectively 7 and 6/100 patient-year). Major bleedings occurred in 9 patients on antiplatelet therapy, in 1 patient on anticoagulant therapy, and in 2 patients receiving no therapy (respectively 9, 5 and 6/100 patient-year).

CONCLUSIONS: Cognitive impairment has a great impact on overall prognosis among elderly patients with AF. Treatment choice should take into account expected survival and risk/benefits balance. Among patients with severe cognitive impairment antiplatelet therapy did not appear to be safer nor more effective than other treatment choices.

SERUM β-CAROTENE LEVELS, ALZHEIMER'S DISEASE RISK AND PERIPHERAL TELOMERASE ACTIVITY IN OLD AGE SUBJECTS

Virginia Boccardi[1], Beatrice Arosio[2], Luigi Cari[1], Martina Casati[2], Evelyn Ferri[3], Cristina Gussago[2], Michela Scamosci[1], Patrizia Bastiani[1], Matteo Cesari[2], Paolo Dionigi Rossi[3], Patrizia Mecocci[1]

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BACKGROUND: Advancing age represents the strongest risk factor for Alzheimer's disease (AD) and the identification of biomarkers able to define what characterizes physiological aging from AD may represent a potential starting point for novel preventive strategies. Among these biomarkers telomeres seem promising target. Interestingly, high intake of carotenoid-rich food may play a role in protecting telomeres and regulating telomere length by oxidative stress reduction. Accordingly, low serum beta-carotene concentrations have been found in AD subjects when compared with controls.

AIM: We aim at investigating the hypothesis that the lower ?-carotene in AD might be associated with markers of accelerated cellular aging, including telomerase activity and shortened telomere length in a cohort of old age subjects.

METHODS: The study was conducted in 93 old age subjects, 53 AD and 40 sex-and age-matched healthy controls. Telomerase activity in PBMC has been evaluated by a PCR-ELISA protocol. The ?-carotene levels were obtained by HPLC and Apolipoprotein E (ApoE) genotype by RFL-PCR.

RESULTS: Subject affected by AD had significantly lower plasmatic levels of ?eta-carotene (448±66 mg/ml) as compared with healthy controls (497±59 mg/ml, p<0.0001). In all population ?-carotene significantly and positively correlated with telomerase activity controlling for gender (r=0.280, p=0.029). The association between ?-carotene and AD risk (OR: 1.012 IC95%: 1.004-1.020, p=0.004) was independent of age, gender, smoking habit and ApoE genotype. A final model having telomerase activity variability as the dependent variable while age, gender, smoking habit and ?-carotene as independent variables, showed that ?-carotene was independently associated with telomerase variability (?=0.286, p=0.035).

CONCLUSIONS: Our data show that in this cohort lower plasmatic β-carotene levels are associated with lower peripheral telomerase activity and AD risk.

POTENTIALLY INAPPROPRIATE MEDICATIONS IN THE ELDERLY: THE EXPERIENCE OF LONG-TERM CARE FACILITIES OF ASP PIO ALBERGO TRIVULZIO IN MILAN

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BACKGROUND: Most of the research to evaluate Potentially Inappropriate Medications (PIMs) has been performed in acute care setting. The novelty of this work was to compare prescribing inappropriateness within the long-term care (LTC) setting, in post-acute unit (PAU) and nursing home (NH).

AIM: We applied 2015 Beers Criteria to evaluate PIMs and possibility of deprescribing in LTC setting (PAU and NH).

METHODS: We consecutively enrolled 120 patients in PAU and NH from December 2017 to February 2018. We evaluated therapies at the admittance (T0) and after 40 days from T0 (T1). Therapies at T0 had been prescribed at hospital discharge or were home therapies.

RESULTS: We observed a reduction from T0 to T1 of:- PIMs to avoid and use with caution: PAU 98% ≥85%; NH 93% ≥80%- PIMs in specific pathologies: PAU 57% ≥53%; NH 66% ≥37%- antiplatelet agents: PAU 33% ≥20%; NH 46% ≥28%- absence of correct indication of antiplatelet agents: PAU 60% ≥40%; NH 60% ≥39%- PPI: PAU 98% ≥72%; NH 31% ≥29%- absence of correct indication of PPI: PAU 50% ≥33%; NH 21% ≥12%- psychoactive drugs: PAU 43% ≥40%; NH 53% ≥30%In PAU: in patients treated with PPI without correct indication, there was a correlation with the use of heparins (both at T0 and T1). In PAU and NH: we didn't observe a reduction of antidiabetic drugs, antiarrhythmics, diuretics, nitrates and anticoagulants.

CONCLUSIONS: Prescribing inappropriateness was present at the hospital discharge or at home. Drugs mainly associated with inappropriateness were antiplatelet agents, PPI and psy-

choactive drugs. Both in PAU and NH prescribing inappropriateness was confirmed at T1, even though application of the 2015 Beers Criteria improved appropriateness of therapies and deprescribing in LTC setting.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND COMORBIDITY

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As known in elderly patients suffering from chronic obstructive pulmonary disease, psychological / psychiatric comordibities such as anxiety and depression can occur that can interfere with the quality of daily life. The aim of the present study was to verify a possible correlation between COPD and depression.

MATERIALS: From October 2016 to December 2017, 162 subjects were evaluated, M: 98; F64 with average age 76.2 who came to the Specialist Pneumology Clinic of Cuggiono Hospital to perform a control visit and subsequent execution of PFR (Respiratory Function Tests). All subjects were self-administered with the Geriatrics Depression Scale - Yesavage (score used in the geriatric field to highlight a possible mood-tone deflection). The indices considered in this study were: FEV1- FEV1 / fvc and GDS. We therefore wanted to verify a possible correlation between the above mentioned indices.

RESULTS: Were the following: considering the whole sample and correlating the indices among them we obtained the following results: FEV1 *versus* GDS 0.05524, FEV1 / fvc *versus* GDS 0.019986. In relation to the severity of the GDS we subsequently divided the sample into three groups A first group consisting of 100 subjects with GDS less than 10, a second group composed of 39 subjects with GDS between 11-15 and a third group composed of 21 subjects with GDS greater than 15. Evaluating the possible correlations between FEV1 - FEV / fvc and gravity of the GDS we have obtained the following data: Group I: -0.02752 -0.138366, Group II: 0.001789 - 0.02204, Group III: 0.130583-0.322169.

ACUTE ABDOMEN IN ELDERLY PATIENTS: ROLE OF ULTRASONOGRAPHY

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Abdominal diseases are increasing in patients older than 65 years. The aim of the study is to evaluate the diagnostic contribution of ultrasound (US) in the elderly patients with suspected Acute Abdomen (AA).

METHODS: The US was performed within 6 hours from hospitalization both in the Emergency Room (ER) and in Geriatric Department (GD) . 60 patients older than 65 years with a suspected diagnosis of AA were examined with US: 30 in the ER and 30 in GD.

RESULTS: The US made in ER identified some causes of AA for which was required immediate hospitalization for emergency surgery. The US made in GD identified several conditions that required careful monitoring in the 70% of the elderly patients and in 30% of patients identified serious diseases that required a transfer in surgical department.

CONCLUSIONS: The use of US in ER prevents inappropriate hospital admission and unnecessary specialist consultations and identifies immediately the elderly patient who requires emergency surgery. The use of US in GD within 6 hours from hospitalization certainly reduces the risk to the elderly patient with suspected AA and other serious diseases and helps to apply very quickly the appopriate diagnostic and therapeutic program and increases the effectiveness and efficiency of care in geriatrics.

HOME HOSPITALIZATION FOR ELDERLY PATIENTS AND ROLE OF ULTRASONOGRAPHY

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Home Hospitalization (HH) allows geriatric care for the elderly patients with a doctors and nurses of geriatrics department remaining in their own homes.

Aim of the study is to evaluate in a group of 50 patients if the ultrasonography (US) performed at home within 6 hours after the start of HH can allows better management of home geriatric care with higher effectiveness and efficiency compared with a group of 50 patients admitted in HH and with US performed only after 3 days.

METHODS: Two groups, A and B, of 50 patients each (age from 65 to 95 years) were admitted in one year at HH. The diseases of the elderly patients included in the study in both groups were: chronic heart fealure, liver cirrhosis,exacerbations of COPD, diabetes, abdominal pain, chronic renal failure. In the group A the US was performed within 6 hours,in the group B the US was performed 3 days after the start of HH. Number of lab tests(LT)prescribed, costs of drugs prescribed, length of stay(days)in HH were compared in two groups.

RESULTS: In the group A the number of LT was 25% lower compared to group B (earlier US diagnosis in group A); the costs for drugs was lower of 30% in the group A in which adeguate theraphy was prescribed earlier after US diagnosis. The length of HH was 20% lower in the group A.

CONCLUSIONS: US performed within 6 hours from admission in the HH is very useful for elderly patients and allows to increase effectiveness and efficiency of home geriatric care.

CLINICAL AND ULTRASOUND DATA SHEET FOR GERIATRIC PATIENTS ADMITTED IN THE EMERGENCY ROOM

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The elderly patient needs often complex and multi-specialized management. The aim of the study is to evaluate the role of ultrasound (US) with the compilation of a clinical and ultrasound data sheet in the management of the elderly patient for whom the physician of ER proposes hospitalization in internal medicine or in geriatrics.

METHODS: 800 patients over the age of 65 were examined with US during counseling in ER and a clinical and ultrasound data sheet with diagnostic hypotheses and ultrasound report was compiled.

RESULTS: The analysis of the behavior of the doctors of the ER and of the consultants has shown that the US has allowed to reduce the times for the choice of the appropriate hospitalization and has also allowed a better appropriateness in the choice of the diagnostic and therapeutic procedure. The analysis of the hospitalization departments highlighted that the doctor of the ER, after execution of US, has modified in 50% of the cases his decision to hospitalize in the department of internal medicine or geriatrics and has chosen a surgical or specialist department with more appropriateness for admit the elderly patient.

CONCLUSIONS: The execution in the US in ER allows to

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increase the appropriateness and efficacy and efficiency of health services towards the elderly patient with complex symptoms.

APPROPRIATENESS OF THE ELDERLY NEOPLASTIC PATIENT'S HOSPITALIZATION: ROLE OF ULTRASOND EXAMINATION

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Neoplastic diseases are increasing in patients older than 65 years. The aim of the study is to suggest a care pathway in which ultrasound (US) is the first diagnostic technique both in Emergency Department (ED) and in Geriatric Department (GD).

METHODS: 100 patients with known cancer and 100 with suspected cancer were examined with US. The two groups of 100 patients where compared with 200 patients in which US was not carried out within 12 hours.

RESULTS: The US performed early differentiated patients requiring only palliative therapy from patients with non oncological diseases and from patients requiring staging and cancer therapy. In the group of patients in which US was performed later the average hospital stay was higher(4-16 days).

CONCLUSIONS: The US performed in ED or early in the GD allowed to select the most appropriate department for hospitalization and allowed to prescribe the appropriate therapeutic and diagnostic program. US reduced length of stay and costs and increased patient safety for the elderly patients with neoplastic diseases.

ROLE OF ULTRASOUND IN THE MANAGEMENT OF OLDER PATIENTS WITH METABOLIC SYNDROME: PREVALENCE OF ASSOCIATION WITH NEPHRO-UROLOGICAL DISEASES

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The aim of the study is to illustrate the role of US in the management of the elderly patient with Metabolic Syndrome (MS) and in detected nephro and urologic diseases associated with MS.

METHODS: We analyzed 20 patients (65-95 years,10 men and 10 women) in whom was formulated the diagnosis of MS. Abdominal US was performed within 24 hours from the time of admission to geriatrics .We evaluated the prevalence of nephrourological diseases associated with MS.

RESULTS: Prostatic hypertrophy was shown in all male patients with MS. In 3 of them there was also bladder globe and bilateral mild hydronephrosis. In one patient, prostatic cancer with bladder infiltration with monolateral hydronephrosis. Bilateral renal lithiasis with hydronephrosis in one patient. A right renal cancer in one patient. In 5 patients nefroangiosclerosis. Renal cysts were detected in 9 patients. Mild urinary incontinence and bladder inflammation in 5 of them were reported in all female patients with MS. US revealed a bladder cancer, two renal lithiasis, 7 renal cysts, one ovarian cancer with infiltration of the uterus, one cancer of uterus with urethral infiltration.

CONCLUSIONS: In all the cases described, the US provided an essential contribution to formulate the diagnosis early and allowed the diagnostic and therapeutic procedures.

CUTANEOUS SMALL VESSEL VASCULITIS ASSOCIATED WITH RIVAROXABAN

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New oral anticoagulants (DOACs) are innovative drugs compared to previous therapies due to their direct action against single coagulation factor, rapid onset, fewer interactions, easier management. Their most relevant complications and side effects are hemorrhages, gastrointestinal disorders, anemia, thrombocytopenia, itching, allergic reactions, fatigue. An 87-year-old self-supporting man was admitted to our hospital for lower limbs and abdomen purpura. One month earlier he noticed bullous crusted lesions in his feet with pain and paresthesia resulting in reduced autonomy and quality of life. His past medical history was relevant for atrial fibrillation, hypertensive heart disease, bowel diverticulosis, arthrosis. He started Rivaroxaban 20 mg daily a few months earlier, stopped upon admission with slight regression of skin signs. On physical examination he presented exclusively skin signs. Hematological tests, C reactive protein, procalcitonin, complements, blood and urine cultures, chest radiography showed no abnormalities. Only serum IgA was mildly increased.Histological examination by skin biopsy revealed perivascular and interstitial dermal linfo-eosinofilic-granulocitarian inflammation, small vessels involvement and focal fibrinoid necrosis suggesting vasculitis. He was started on steroids with initial benefit and discharged on antiplatelet therapy. Skin lesions further improved in one month. We planned further evaluation at complete vasculitic resolution to decide whether to resume anticoagulation therapy.Temporal relationship between drug introduction and lesions appearance, lack of alternative etiologies and initial improvement after drug withdrawal suggest Rivaroxaban as a likely trigger for vasculític signs. Cutaneous vasculitis is infrequent compared to non-specific cutaneous manifestations or intolerance. Clinicians should not forget cutaneous small vessel vasculitis as a possible rare side effect of DOACs due to its heavy impact in autonomy reduction.

HOSPITAL AND TERRITORIAL GERIATRICS IN THE PROVINCE OF CATANZARO, ITALY

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INTRODUCTION: Today the rebalancing and integration between hospital and territorial assistance is one of the priority health policy objectives towards the most advanced health systems have been directed to give concrete answers to the new health needs determined by the effects of the three transitions (epidemiological, demographic and social) that have changed the frame of reference in the last decades We wanted to analyze the dedicated geriatric services, hospital and territorial, presenting in our province.

MATERIALS AND METHODS: In our province there are the "Pugliese Ciaccio" Hospital of Catanzaro and the Provincial Health Authority (ASP) of Catanzaro. The hospitalization data come from the SDO, while the provincial healthcare company's services are elaborated by the company information system.

RESULTS: The Acute Geriatric Unit is from the A.O. Pugliese Ciaccio, in 2017 it carried out 1.311 hospitalizations, with an average hospitalization of 6,7±4,6 days, with 83.91%of over seventy-five years old. The ASP guarantees the territorial services. In particular, there are Surgeries Geriatrics, which in 2017 provided 3.537 multidimensional assessments, with 1.438 (40,65%) performed at home. The ADI service has provided 41.581 services (2.782 patients). In agreement with the ASP there

are 823 beds in nursing home, distributed in 14 Healthcare Residences (462beds), in 9 Senior Protected Homes (361beds). In our territory, always in relationship of convention, two "Hospice" (20beds) are present. The two health companies, since 2009, have a protocol of protected discharges that made 1.684 services, including 278 in 2017.

CONCLUSIONS: The analysis of the data suggests the need to implement paths with the aim of eliminating the discontinuity between the three classic levels of care (primary care, territorial specialist, hospital stay) giving rise to a "continuum" that includes the identification of specific " products "(clinical and not-clinical) by each caregiver (or the team) in relation to the prefixed health objective.

CASE REPORT: PARANEOPLASTIC MONONEUROPATHY IN A GERIATRIC PATIENT WITH BILE DUCT CANCER

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BACKGROUND: Our patient is an 86 year old woman who had been diagnosed a local advanced bile duct cancer. Surgery or chemotherapy were not indicated, therefore she was treated with a palliative biliary stent, with resolution of abdominal pain and improvement of liver function.

AIM: Then, the patient came to our clinic because of a worsening of biochemical data and the development an intermittent dysarthria, from the involvement of the right hypoglossal nerve. The benefit from corticosteroid therapy, albeit transient, and the positivity of the auto-antibodies panel confirmed the diagnosis of paraneoplastic syndrome.

METHODS: Our patient, an 86 year old woman, who was admitted once before to our clinical department, was firstly referred by her family physician for abdominal pain, jaundice (total bilirubin 17.76 mg/dL) and suspected biliary tract malignancy (CA 19.9 1313 IU/ml and CEA 48.1 ng/ml). During that first hospitalization an external biliary drainage was placed, with improvement of the clinical and biochemical tests. An abdominal Computer Tomography (CT) scan and a Magnetic Resonance Imaging (MRI)-cholangiopancreatography showed the presence of a local advanced bile duct cancer with involvement of the vena cava. Surgical treatment or chemotherapy were not indicated, therefore a biliary stent was positioned. The patient refused to undergo biopsy of the lesion. During the hospitalization she developed an allergic skin reaction to the iodinated CT contrast medium that resolved with intravenous corticosteroids. After 14 months, she came to our outpatient clinic because recent blood analysis data had shown a slight increase in the indices of liver damage and cholestasis (total bilirubin 1,30 mg/dL, direct bilirubin 0.36 mg/dL, AST 45 U/L, ALT 38 U/L, ALP 432 U/L, ?GT 272 U/L, LDH 251 U/L, INR 1.12). Moreover, the patient reported in the last four months, multiple daily episodes, lasting from minutes to hours, of speech problems, at times associated with swallowing difficulties. These disorders were discontinuous, being more frequent in the afternoon. They resolved spontaneously with no other associated symptoms. During this period, the patient did not consult her family physician, hoping for a spontaneous resolution of the symptoms. The patient was then hospitalized for further investigations and follow-up of the neoplastic disease. She appeared in good general conditions, alert, oriented in time and space, with no amnesic gaps. The physical examination showed the deviation of tongue and uvula to the right, during phonation, and an hypo-mobile velum to the right, indicative of right hypoglossal nerve damage, outcomes of poliomyelitis in the right lower limb and no other neurological deficits. At the functional assessment, the patient appeared independent in the activities of daily living, both simple and complex (Activity of Daily Living, ADL=6/6; Instrumental Activity of Daily Living, IADL=7/8), with normal cognitive capacities (Mini Mental State Examination, MMSE=28.8/30). An abdominal ultrasound and CT scan showed the presence of pathological tissue at the level of the hepatic hilum, stable by comparison with the CT scan performed during the prior hospitalization. The biliary stent was still patent. Searching for possible encephalic metastasis, explaining the neurological symptoms, we performed a head CT scan with iodinated contrast medium after a preventive desensitization treatment with prednisone, ranitidine and cetirizine. The CT scan showed no metastatic lesions. During desensitization therapy and for a few days afterward, the dysarthria disappears.The neurological examination showed: tongue deflected to the right in the primary position, no deviation during protrusion. Velum in axis, pharyngeal reflex present and valid, remaining cranial nerves unharmed. These findings are consistent with damage of the right hypoglossal nerve.A panel of auto-antibodies, related to paraneoplastic neuropathies, performed by Trieste Autoimmune Brain Atlas (TABA) showed positivity for anti-PNMA2 (paraneoplastic Ma antigen 2), anti-asialo-GM1 (monosialo-tetrahexosylganglioside), anti-GD1a (di-sialotetra-hexosylganglioside 1a) and anti-GD1b (di-sialotetrahexo-sylganglioside 1b). PNMA2 is a highly specific tumor antigen for cholangiocarcinoma (Chapman MH, et al. J Hepatol 2012), instead anti-asialo-GM1 and anti-GD1b the others are autoantibodies against neuronal membrane gangliosides, constituents of receptors for neurotransmitters, hormones, toxins, etc., inducing a specific synaptic responses (GD-1b appears to be involved in Guillain-Barré syndrome).Diagnosis: Our diagnosis was paraneoplastic mononeuropathy of the right hypoglossal nerve in a patient with bile duct primary cancer, treated with biliary stent placement.

THERAPY: Because of the slow progression of the primary cancer and the improvement of the biochemical indices of liver function during hospitalization we did not consider advantageous to replace the biliary stent. Moreover, considering the clinical benefit observed during the desensitization therapy on the deficit of the right hypoglossal nerve, we decided to continue the therapy with prednisone (10 mg twice/day).

RESULTS: After 60 days from discharge, the patient called us on the phone for a worsening of the dysarthria. She also informed us of her outpatient visit at the advanced oncologic center of Aviano (Regional Cancer Centre of Aviano, Pordenone, Italy) that had confirmed our diagnosis and therapy. We advised the patient to continue with the prescribed dose of prednisone, without further enhancement of the corticosteroid therapy, in order not to compromise her immune response and the clinical course of the primary cancer.

CONCLUSIONS: We believe that this clinical case confirms the importance of using specific biomarkers for cancers, usually associated with a delayed diagnosis and a bad prognosis, such as those of the biliary tract, in subjects with paraneoplastic syndrome. Differently from our case, two third para-neoplastic syndromes may develop months or even years before the diagnosis of the primary cancer. The use of highly specific serum biomarkers could greatly improve the chances of treatment chances and the survival of patients.

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SEVERE AORTIC VALVE STENOSIS IN ELDERLY AND RECURRENT GASTROINTESTINAL BLEEDING (HEYDE SYNDROME): A CASE REPORT

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BACKGROUND: The association of aortic valve stenosis with gastrointestinal (GI) bleeding was first described by Heyde in 1958[1]. This relationship is observed in 3% of patient with aortic stenosis[2] and the source of bleeding has been attributed to intestinal angiodysplasia[3]. Recent studies highlight the connection between the acquired type 2A von Willebrand syndrome and valvular heart disease showing a strict correlation with severity of valve disease and bleeding (Heyde syndrome)[3-4]. Sucker suggested a multifactorial pathogenesis of Heyde syndrome[5].

CASE REPORT: An 81-year-old female was referred to our geriatric clinic complaints of "persistent dyspnea". The patient reported epilepsy, myelodisplastic syndrome, colon polyposis, chronic gastropathy. During the hospitalization she had frequently bleeding needing a numerous (16) blood transfusions. An EGD confirmed chronic gastropathy, a colonoscopy showed colon polyposis and angioTC didn't show bleeding source. The patient underwent surgery treatment of polyposis because of severe anemia. The echocardiography showed severe aortic stenosis with a mean transvalvular pressure gradient of 74mmHg and an aortic valve area of 0.37cmq. After the hemicolectomy the patient had another rectal hemorrhage. We hypothesized she could be affected by Heyde syndrome so she's waiting for TAVI.

CONCLUSIONS: Correction of aortic valve stenosis seems to decrease the risk of GI bleeding[6]. In the future, we will probably observe a progressive growth of vWF use in clinical practice, with a potential impact on the management of patients with planned percutaneous or surgical valve operations, including TAVR and MitraClip procedures[7].

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ROBOTIC EVALUATION OF FALL RISK IN OLDER PEOPLE: RESULTS ON TRUNK PARAMETERS IN STATIC AND DYNAMIC BALANCE CONDITIONS BY HUNOVA ROBOT

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BACKGROUND: Maintaining balance depends on the integration of sensory, proprioceptive and vestibular information to appropriately adjust movements responses to different postural conditions. Hunova is a new robotic device developed and validated to perform functional evaluation and sensorimotor rehabilitation of lower limbs and trunk in static and dynamic environments.

AIM: Aim of this study was to evaluate balance parameters in older subjects with different risk of fall.

METHODS: 100 subjects aged $\geq$65 years (mean age 77.17±6.49 SD years) were enrolled. According to the number of falls in the last 12 months, participants were allocated to low, medium or high risk of fall. Balance was evaluated by Hunova in static, unstable and perturbating conditions, in both standing/seated positions and with open/closed eyes. Parameters were: sway area (SA), path length (PL), range of oscillations in anterior-posterior (OAP) and medio-lateral directions (OML) in both platform and trunk oscillations. Statistical analysis was carried-out by means of Kruskal Wallis test on medians and Spearman correlation test.

RESULTS: Older fallers had higher trunk PL both in unstable (fallers, median(IQR): 43.79(29.21) *vs* non-faller 32.5 (23.35) (deg), $p<0.01$) and moving (fallers 45.27(31.29) *vs* non-fallers 35.94(22.12) (deg), $p<0.05$) platform in standing with open eyes condition. Trunk SA and OML were significantly different in subjects with different fall risk classes in perturbating conditions when seated with closed eyes. Trunk parameters in unstable and perturbating conditions showed also a strong and significative correlation with age ($p<0.01$).

CONCLUSIONS: Hunova robot was able to detect physiological components involved in balance maintenance in older subjects with different fall risk. This evaluation could be crucial to prevent falls and to plan rehabilitation programs in older subjects at different risk of fall

HAEMOPHILIA A: TWO CASE REPORTS FROM GERIATRIC WARD

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INTRODUCTION: Haemophilia A is a rare autoimmune syndrome. Etiopathogenesis is due to the formation of antibodies against factor VIII, resulting in haemorrhagic manifestations occurring often as subcutaneous hematomas. In 50% of cases Haemophilia A is idiopathic in another 50% is due to a neoplastic or an autoimmune cause. We show two emblematic cases of patients with acquired hemophilia, admitted to Geriatric ward.

CLINICAL CASES: An 86-year-old man was admitted in march 2017 in our unit for the appearance of a large hematoma on the lateral femoral zone, another in the left forearm and in the gluteal region. 10 years earlier, he was surgically treated for prostate cancer and he currently suffered from chronic bronchitis. An 85-year-old woman arrived in febbruary 2018 in our

Department for macroematura in the last two days and with a history of hypertension and a surgery treated breast cancer.In both cases we found anaemia and elongation of activated partial thromboplastin time while prothrombin time, platelets number and fibrinogen were in the range limit and lupus anticoagulant anticardiolipin (aCL) antibodies were negative. It resulted a reduced factor VIII (26%) in the first case and a fall of all coagulation factors of intrinsic and extrinsic pathway in the second case, and the presence of antibody against factor VIII in both cases (80 UBethesda/ml in the first and 460 BU/ml in the second case). These results confirmed the diagnosis of Haemophilia A. Both patients were treated with blood transfusions and steroid therapy (prednisone 1 mg/Kg/day) and factor eight inhibitor bypass activity (FEIBA) (at a dose of 90 mcg /Kg every 3 hours), with a rapid resolution of clinical and laboratory findings.

CONCLUSIONS: Haemophilia A is a rare syndrome, with an incidence of 1.5 cases per million per year, increasing with elderly. Its diagnosis is underestimated but often under diagnosed. It's a severe disease but if diagnosed in the short period, it responds well to medical treatment. It is important to suspect it in the presence of a massive bleeding and an isolated elongation of aPTT.

TOXIC EPIDERMAL NECROLYSIS FROM ALLOPURINOL ASSUMPTION IN AN ELDERLY PATIENT

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INTRODUCTION: Toxic epidermal necrolysis (TEN) is a severe (mortality of 30-40%) but rare condition (annual incidence 0.4-1.9/million), characterized by cutaneous damage due to apoptosis of keratinocytes. It results in a dermo-epidermal detachment for an extension >30% of the body surface, associated with mucosal lesions. Etiology is related to intake of drugs (antibiotics, antiepileptics, NSAIDs, allopurinol) or, herpes virus or Mycoplasma infection. We describe the clinical case of TEN from allupurinol.

CLINICAL CASE: An 82-year-old man was admitted for dyspnoea and right pleural effusion. He reported hypertensive heart disease and non-Hodgkin's lymphoma in remission. At home, he took antihypertensive therapy. Vital parameters were normal, 96% SpO2 in O2. Chest drainage was performed and antibiotic therapy was assumed (Piperacillin / tazobactam and Levofloxacin). On the third day, for high values of acid uric (10.8 mg/dl), he began therapy with Allopurinol 150 mg/day. After 4 days the patient showed an extensive erythematous rash localized to the trunk and upper limbs. He began high-dose steroid therapy, suspending antibiotic and Allopurinol therapy. In the following days, the rash also involved face, tending to the confluence and extending to the oral and ocular mucosa. Extensive areas of de-epithelialization appeared, with a positive Nikolsky sign. Histological examination confirmed the framework of TEN. Mortality with SCORTEN 4 was 58.3%. For the appearance of anemia and decay of the general conditions, it was transfused and supported by infusional, nutritional and antibiotic therapy, obtaining an improvement in the clinical state in about two weeks.

CONCLUSIONS: TEN is a potentially fatal severe mucosal skin reaction associated with the use of certain drugs. In elderly with poly-pathology and in poly-therapy there is a greater predisposition for the onset of this disease. To reduce mortality it should be recognized in time for an adequate therapeutic and support strategy.

PRESSURE ULCERS IN HOSPITALIZED FRAIL ELDERLY PATIENT: RESULT OF A DEDICATED TEAM

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INTRODUCTION: The definition of "pressure ulcer" is the following: "lesion localized to the skin and / or underlying layers, generally at a bone prominence, as a result of pressure, or pressure in combination with shearing forces". Particular attention requires the frail elderly patient, also considering the numerous scientific evidence of correlation between mortality and pressure injury.

PURPOSE: It is to analyze the results of an innovative model of assistance represented by the figure of the medical tutor and by the nursing team and dedicated to pressure lesion management about the inpatients of our Geriatric Intensive Care Unit from 1/1/2017 to 31/12/2017.

MATERIALS AND METHODS: Our management protocol proceeds according the following scheme: Multidimensional Evaluation, Prevention, Use of Antidecubitus Treatment Plan, Nutritional Support. The nursing team is a group made up of experienced nurses, identified according to qualifications such as advanced / specific training on pathology or procedures, work experience or direct assistance in critical areas, participation in training courses, the motivation to increase the study of the specific clinical setting or procedure.

RESULTS: There were one thousand three hundred eleven hospitalizations, with a male percentage equal to 43,25%. The average hospital stay was 6,7±4,6 days. Of the hospital patients , 20,52% showed Immobilization Syndrome and 14%persons already had a "pressure lesion" on admission. At the time of discharge, this lesion was treated with specific care and nutritional support in 100% of cases. At the time of discharge only one patient developed new decubitus ulcers.

CONCLUSIONS: The creation of "Pressure Ulcer Treatment Programme", with an interdisciplinary team in the settings, that takes care of "frail elderly patient", highlights how recommendations and their compliance are fundamental for a great clinical practice and a good global management of this type of patients. The challenge is to balance the best practices of prevention and management of wounds, while promoting patient dignity, self-esteem and quality of life.

A CASE OF COGNITIVE IMPAIRMENT FINDING SOLUTION AFTER THE ONSET OF ANISOCORIA

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BACKGROUND: Dementia is an increasingly common condition. Although Alzheimer's disease represents the most common form, there are many other types requiring a careful diagnostic evaluation.

AIM: To report the case of a geriatric patient with cognitive impairment and rapid functional loss.

METHODS AND RESULTS: The patient was an 82-year old man, with arterial hypertension, diabetes, chronic heart disease, and history of prostate cancer. He was in stable and relatively healthy condition up to one month before the first assessment at our outpatient clinic, where he was referred for the sudden onset of aspecific symptoms (including apraxia, slow walking, and anxiety). He presented almost complete dependency in

the activities of the daily living, initial memory disturbances, and compromised mobility. The blood tests and apolipoprotein E genotyping were normal. Treponema pallidum antibodies were also negative. Our preliminary hypothesis, supported by the cardiovascular risk profile, the report of a recent brain MRI scan (documenting chronic vascular encephalopathy), and the neurologic examination, was of vascular dementia. Nevertheless, the presence of anisocoria found during the follow-up visit led us to repeat a neuroimaging evaluation (brain CT), which documented an area of hyperdensity surrounding the left lateral ventricle frontal horn, suggestive for lymphoma. This finding was confirmed by a brain MRI with contrast. Total body PET scan described the signs of a systemic lymphoma. The patient underwent haematological evaluation, which advised for palliative care with steroid therapy.

CONCLUSIONS: In our case, the cognitive impairment presented by the patient was complicated by the sudden onset of a vague symptomatology. Despite the availability of a previous neuroimaging test (first brain MRI), our case found solution thanks to the onset of an often overlooked sign (*i.e.*, anisocoria). This made us repeat further neuroimaging, which led to the probable cause of the functional decline.

KIDNEY FUNCTION AND COGNITIVE DECLINE IN FRAIL ELDERLY

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BACKGROUND AND AIM: Elderly Frails are a particular sub-group of geriatric patients characterized by a phenotype of five variables: unintentional weight loss, self-reported exhaustion, low energy expenditure, slow gait speed, and weak grip strength. They often express a high prevalence of renal insufficiency. Starting from a geriatric population, we aimed at evaluating a series of frail individuals with non-advanced chronic kidney disease (CKD) in order to establish functional, general health and cognitive impairment and the possible, existing relationship between these types of dysfunction and the severity of CKD.

METHODS: In a cohort of geriatric subjects (n=2229), patients with a clinical diagnosis of CKD and frailty were invited to participate into the study. Presence/severity of non-advanced CKD was defined according to the National Kidney Foundation (NFK) classification on the basis of the estimated glomerular filtration level (eGFR) ranging from stages 1 to 4. Fried Frailty Index defined frailty. Characterized patients underwent a geriatric assessment of functional and cognitive status.

RESULTS: Final analysis included 271 frails (162 women, 109 men). The overall prevalence of cognitive impairment was 26% of patients with severe cognitive impairment, 67% with moderate and 7% with mild impairment. Cognition significantly decreased across CKD stages (P for trend <0.0001) and remained significantly correlated to eGFR after adjustment for other factors at multivariate analysis (? =0.465; P=0.000).

CONCLUSIONS: CKD is highly pervasive among frail elderly individuals and the entity of renal dysfunction is independently correlated to that of cognitive impairment. The deficiency affects all aspects of cognition and hardly impact on daily life.

OBSERVATIONAL STUDY OF FREQUENCY OF PNEUMONIA IN ELDERLY ADMITTED TO LONG TERM CARE FACILITY

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Pneumonia is a major medical problem in the very old patient. The increased frequency of pneumonia is explained by the ageing of organ system including decreased elastic recoil, decreased chest wall compliance, reduced respiratory muscle strength, reduced mucocilliary clearance and diminished cough reflex. Often, they already suffer from co-morbid conditions, are hosted in nursing homes and are colonized by multidrug resistant bacteria.The aim of this study is to classify the pneumonia (community-acquired CAP, nursing home acquired NHAP, and hospital-acquired HAP), describe the patients with their comorbid diseases, the etiology when possible, and the rate of mortality and reospedalization, and average hospitalization.We performed a retrospective observational study (from December 2015 to June 2016) of patients with pneumonia admitted to long term care facility of Marzana (Italy) with diagnosis of CAP, NHAP or HAP. Data were collected on demographics, comorbidities, Activity of Daily Living (ADL) score, mini-mental state examination (MMSE), the appearance of complications, laboratory exams, microbiology, therapies, rate of mortality and reospedalization. Forty-one subjects were enrolled, 21 CAP, 16 HAP and 4 HCAP. The median age was 84.2 years. Etiology was obtained in 22 patients, including blood culture and bronchoalveolar secretions. Overall the rate of mortality was 14.6%, while the 6-month mortality was 51.2%. The rate of reospedalization within 30 days was 26.8% with an average hospitalization of 47 days. In particular, focusing on HAP alone, the rate of mortality and 6-month mortality was almost the same, while the rate of reospedalization and average hospitalization was twice. It is important to recognize HAP precociously to start an appropriate and quick therapy while waiting for microbiology result to attempt to reduce the complications that can increase the average hospitalization.

EFFICACY OF VILANTEROL/FLUTICASONE IN PATIENTS WITH ASTHMA AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE OVERLAP

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BACKGROUND: In the early stages of COPD the therapy is essentially based on the use of long-acting anticholinergic (LABA) and/or antimuscarinic (LAMA) bronchodilators, while the inhaled glucocorticoids (ICS) are indicated in the final stages of the disease.

AIM: However, there is a percentage of patients with a mixed form of asthma and COPD called ACO that have an ineffective clinical and functional response to LABA/LAMA and instead benefit from the treatment associated with LABA/ICS in the initial and intermediate stage of the disease.

MATERIALS AND METHODS: We proposed to 38 patients with elderly COPD with a broncoreactivity positive test (over 64, 14 F and 24 M) for at least 2 years in treatment with LABA/LAMA (Indacaterol/Glycopyrronium 85/43mcg), a change in therapy with ICS/LABA (Fluticasone/Vilanterol 92/22 mcg), because they referred that the symptoms were insufficiently controlled by bronchodilator therapy. We monitored baseline and periodic (monthly) FEV1, FVC, PIF, PEF, CAT and mMRC, blood tests, EGA, sputum examination, number of exacerbations for each patient with periodic checks, monthly for 6 months.

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RESULTS: The 58% of cases were indicative of a significant and constant improvement of bronchodilation with documented improvement of instrumental and clinical parameters; We have found a post-BD increase in FEV1>12% and 400 ml compared to baseline; the 42% of patients demonstrated limited clinical and instrumental changes and their subjective symptoms improved with the addition of LAMA therapy (Tiotropium 18 mcg).

CONCLUSIONS: In patients with ACO, once daily soministration of LABA / ICS shows good compliance with the device, efficacy in bronchodilation, improvement of subjective parameters and a statistically significant reduction of exacerbations rate. In ACO responders (22±2) we observed an improvement of FEV1 of more than 12% instead.

IMPACT OF ONCOGERIATRIC CONSULTING TEAM ON OLDER PATIENTS WITH CANCER IN THE ASL CUNEO 2

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INTRODUCTION: Increased life expectancy and cancer incidence imply the need to develop a specialized care policy for elderly patients with cancer. The G8 screening has been specifically developed and validated to screen for frailties and identifies patients who may benefit Multidimensional Geriatric Assessment (MGA). G8 is simple, can be given by a nurse, and consists of 8 items concerning nutritional status, body mass index, motor skills, psychological status, number of medications, and self-perception of health. The score ranges from 17 (not at all impaired) to 0 (heavily impaired). A score lower or equal to 14 requires MGA and oncogeriatric evaluation.

MATERIALS AND METHODS: We carried out a descriptive real-life analysis of patients scored 14 or less at the G8 and aged 75 or older, over one year period, in the Oncogeriatric Outpatient of the ASLCN2. We analyze the impact of the Multidimensional Geriatric Assessment on the final cancer treatment decision.

RESULTS: From January to December 2017, we evaluated 72 patients (38 women and 34 males). Average age was 82 years (range 75-96). The G8 average score was 10.9. We evaluated people suffering from colon, urological, breast, lung and pancreatic cancer. 30 patients had metastasis when evaluated. We found that only 41% of patients were aware of their health status, whereas the 19% didn't know to have cancer at all. After our evaluation 30 patients received conventional therapy , 28 had personalized protocols, 14 patients were sent to palliative care because too frail. Cognitive impairment, advanced stage of cancer and inadequate social situation were the factors that most influenced us in deciding not to treat the patient. Poor nutritional status, polypathology and depression have conditioned the choice of tailored therapy among the less frail patients.

CONCLUSIONS: Multidisciplinary approach in the elderly is important in detects frailty and leads to tailored oncology treatments.

PHYSICAL ABILITY AND RISK OF DISABILITY IN THE ELDEST AFFECTED BY DIASTOLIC HEART FAILURE

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BACKGROUND: Heart failure causes disability and hospitalization in elderly people.

AIM: To evaluate blood pressure combined with physical ability in elderly people affected by diastolic heart failure, linking the two markers variability with the risk of disability.

METHODS: 25 elderly subjects (12 males, 13 females, mean age 75±8) hospitalized at the Geriatric ward and with a diagnosis of heart failure were included. The design of the study included: 1) NYHA class evaluation; 2) Short Physical Performance Battery (SPPB); 3) Basic Activity Daily Living (BADL); 4) Instrumental Activity Daily Living (IADL).

RESULTS: Prevalence of heart failure increased with age (73.7%>age 80). 73.3% subjects had a history of hypertension. Mean blood pressure values were: SBP 147±13 mmHg and DBP 89±12 mmHg. 37.5% had controlled blood pressure. 25 cases affected by diastolic heart failure had a 53.9% ejection fraction. When affected by uncontrolled hypertension, during the hospitalization those in Class I NYHA had a higher percentage of worsening heart failure. However hypertensive subjects showed a definite worsening in NYHA class due to heart failure (21%) *versus* controlled ones (6%). Through the same investigation we detected that a history of hypertension was an independent predictive factor of NYHA Class diastolic heart failure ($p<0.05$).We also detected that the average number of hospitalization days was higher in elderly patients affected by heart failure in 2 or 3 NYHA Classes and uncontrolled hypertension ($p<0.05$). At discharge a lower score in physical ability (mean score 6 for 87% patients) was prevalent in elderly patients with heart failure in 2 or 3 NYHA Class and uncontrolled hypertension. The same group showed a more severe grade of disability (mean score 3.67/6 BADL; mean score 2.87/8 IADL).

CONCLUSIONS: The prevalence of diastolic heart failure increases with age. The cases of this study showed a connection among diastolic heart failure and physical efficiency, that is predictive of frailty.

ROBOTIC EVALUATION WITH HUNOVA IN OLDER PEOPLE: CORRELATION WITH THE LEVEL OF PHYSICAL ACTIVITY

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BACKGROUND: Hunova is a new robotic device developed and validated to perform functional evaluation and sensorimotor rehabilitation of lower limbs and trunk in static and dynamic environments.

AIM: Aim of this study was to evaluate correlation between balance parameters in different condition and physical activity level in older people.

METHODS: 100 subjects aged ?65 years (mean age 77.17±6.49 SD years) were enrolled in this study. Subjects physical activity was measured by the Physical Activity Scale for the Elderly (PASE); according to the PASE score subjects were divided in three groups of equal numerosity (low (n=32): PASE<99; medium (n=32): 99<=PASE<138; high (n=32) PASE>=138 physical activity). Balance was evaluated by hunova in static, dynamic and perturbating conditions, in both standing/seated positions and with open (OE)/closed eyes (CE). Parameters were: sway area (SA, cm2 in static condition, angular displacement area-deg2- in dynamic conditions), path length (PL) (cm in static conditions and angular degree in dynamic conditions, Center of Pressure/platform oscillations), range of

oscillations in anterior-posterior (OAP, cm in static conditions and angular degree in dynamic conditions) and medio-lateral directions (OML, cm in static conditions and angular degree in dynamic conditions) (platform and trunk oscillations). Statistical analysis was carried-out by means of Kruskal Wallis test and Spearman correlation test.

RESULTS: Subjects with lower physical activity showed lower balance control in standing static condition with CE (SA: low=5.19 medium=2.23 high=2.13 p=0.002; OAP: low=3.17 medium=2.36 high=1.87 p=0.003; OML: low=2.24 medium=1.81 high=1.43 p=, PL: low=28.27 medium=22.45 high=20.43 p=0.005). In seated position PL, index of energy expenditure was higher in subjects with lower or medium physical activity score both in dynamic condition (with OE: PL low=97.05 medium=105.72 high=70.27 p=0.03; with CE: PL low=101.28 medium=109.08 high=56.53 p=0.03) and static condition (with CE: PL low=179.08 medium=183.08 high=133.49 p=0.02).Trunk control parameters correlated with PASE in all the conditions tested in standing position: static with OE (OML: low=1.58 medium=1.71 high=1.24 p=0.04) and CE (OAP low=3.42 medium=2.92 high=2.63 p=0.02), dynamic with OE (OAP low=5.78 medium=5.60 high=4.35 p=0.01, OML low=7.6 medium=5.44 high=4.85 p=0.02) and passive with OE (OAP low=8.83 medium=6.79 high=6.23 p=0.008, OML low=7.25 medium=5.52 high=5.62 p=0.01).

CONCLUSIONS: Older subjects with lower physical activity score had worse balance control especially in standing difficult condition such as with closed eyes or in dynamic and perturbating conditions.

NON INVASIVE VENTILATION IN ELDERLY PATIENTS: IT'S POSSIBLE?

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INTRODUCTION: The treatment of hypercapnic respiratory failure (HRF) with non-invasive ventilation (NIV) as a first-line therapy is increasingly common in Elderly (E) patients (P) and it has an impact on the use of "do not intubate" orders[1-2]. In Rimini's Infermi Hospital we tested NIV in E inpatients with HRF in order to evaluate efficacy of this tool.

MATERIALS AND METHODS: 28 inpatients (14 male, 14 female), 87 median age, hospitalized in Geriatric ward, with HRF due to COPD, heart failure, pneumonia and lung cancer were evaluated by a multidisciplinary team (geriatrician, pneumologist and anesthesist if necessary). Main comorbidity were hypertension, renal failure, heart disease and cognitive impairment. 4 inpatients had pH <7.20 at baseline (equal to severe respiratory acidosys- SRA). All were treated with NIV in order to reduce hypercapnia at emogasanalisys (EGA). NIV was implemented at times leaving P in spontaneous beathing during intervals and EGA was detected at baseline, after 2 hours of NIV and in case of need.

RESULTS: Median stay in ward 13.5 days, 3 P did not tolerated NIV. Median CO2 and pH before NIV, respectively, 76 mmHg – 7.28. Median CO2 and pH after NIV, respectively 50 mmHg and 7.42. 78.5% P had improved hypercapnia. 3 of 4 P with SRA at baseline showed no symptoms and good EGA after NIV. 5 P died (one in SRA subgroup). No one P underwent orotracheal intubation.

DISCUSSION: Despite poor cases data shows that most P with HRF tolerates NIV. NIV as a first-line therapy is the ideal approach in E with HRF. NIV may be the reference tool also in P with SRA.

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ELDERLY PATIENTS WITH ONCOLOGIC DISEASES CARE OUTSIDE HOSPITALS

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The Palliative Care network in Trento's Province is organized to take care patients with incurable diseases at home or in dedicated three hospice. The most of patients are elderly. The number of patients managed by Palliative Care, from 2014 to 2017, has grown progressively.We evaluated the service's effectiveness through the number of patients with oncological pathology taken care according to Italian Ministry of Health's Legislative Decree February 22 th, 2007 (65% of eligible patients with oncological pathology) and monitoring the variation of hospital admissions due to complications related to cancer pathology.The analyzed data, from 2014 to 2017, are the percentage of deceased patients taken over by those entitled, the number of deaths and, finally, the number of patients who died at S. Chiara hospital subdivided in hospitalization departments: oncology (Oncology and Radiotherapy), internal (Internal Medicine, Pneumology, Infectiology, Neurology), surgical (General Surgery, Gastroenterology, Gynecology, Urology), Intensive Care/Resuscitation. The number of admissions to Geriatric Department was analyzed separately in relation to the relevance (scegli tu tra le due) of data.The number of deaths at home or hospice is over 84%. The deaths at S. Chiara Hospital in 2017, compared to previous years, were reduced by 10%, while those in secondary hospitals, remained constant during the observation period. The reduction of deaths was more considerable in geriatric department of S. Chiara Hospital. The Palliative Care network, in our province, is in line with ministerial standards. This represents the result of a collaboration between professionals operating in hospital and territory. The experience of patient, family and operators about "end of life" lived at home or in the residential environment, has exalted the importance of the interhuman relationship and ethical value.

THE HEALTHCARE RESIDENCE AS A NODE OF PALLIATIVE CARE NETWORK

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In relation to population, Trentino is the Italian province with the highest availability of beds in healthcare residence and in these facilities 30% of deaths of the entire province occur. Mortality due to neoplasia represents an important proportion. This is the reason why the Provincial Council has approved the collaboration project between RSA and Palliative Care Network (Resolution GP. n. 2373 of 22/12/14 "plan for 2015 the RSàs structured integration in the provincial palliative care network"). A working group consisting of professionals working in the Provincial Health Services Company (APSS), in healthcare residence (RSA) and of Provincial

Union Assistance Institutions (UPIPA), has been set up and gave rise to a project called "RSA node of palliative care network" to assist the patient in healthcare residence. This project is organized on two levels:1st level (base): all patients are included in the Palliative Care Assistance Network but are assisted by professionals working in RSA. 2nd level (specialist): patients with advanced oncological pathology are assisted by professionals specialized in Palliative Care. The project involves the continuous training of professionals in RSA. Between 2015 and 2017 the RSAs that took part in the project were 51 out of 57. The number of requests to take care of patients during this period has progressively increased. The 203 professionals working in RSA were trained through frontal meetings carried out on all the territory of the province, for a total of 3683 hours. The adherence to this project, which has as its basis the collaboration between the different professionals, has allowed a holistic management of the patient ensuring an excellent standard of care regarding analgesia, nutritional choices, palliative sedation. The future goal is to extend the operation of the project to patients suffering from incurable non-cancer disease.

HIP FRACTURE IN THE ELDERLY FRAIL PATIENT: GENDER AND DELIRIUM DIFFERENCES

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Hip fractures in the elderly has a higher incidence in women, although it is decreasing due to an improved prescription of bisphosphonates. Furthermore, there has been an increasing trend of fractures in males, that is associated with the aging of the population, with greater men's survival than in the past. Hip fracture is associated with a complex course and complications. A frequent complication is post-operative delirium (incidence:13-56%).We studied elderly patients hospitalized consecutively for a period of 74 months, in order to identify the differences in preoperative risk factors for delirium and in different outcomes according to gender. Demographic characteristics, co-morbidities, cognitive, nutritional and functional statuses, and ASA score were collected and analyzed as potential preoperative risk factors for delirium. Delirium was assessed with CAM.602 patients (126 males, 476 females) were enrolled to the Orthogeriatrics Unit, Sondrio Hospital (ASST Valtellina and Alto Lario). Males showed higher comorbidity (CIRSc P=0.042), with a higher incidence of cardiovascular disease (P=0.049), COPD (P=0.003) and tumors (P=0.029) than females. Females had a higher incidence of hypertension (P=0.045) and osteoporosis (P=0.001). Dementia showed the same prevalence of 23.4%.The incidence of delirium was 29.1%, higher in men (35%) than in women (27.5%), but without being statistically significant (P=0.078). MMSE (P=0.001) and Barthel index scores (P=0.016) were identified as risk factors for delirium among males, while among females other than MMSE (P=0.017) and Barthel index (P=0.019), the additional risk factor was the ADL score (P=0.010).Men showed a greater number of comorbidities and were more physically compromised than women; cognition was similar. Men show a higher incidence of delirium, but not significant.We highlighted a statistically significant association between delirium and two risk factors in both sexes: cognitive status and functional capabilities in the post-operative period. Among women, a third risk factor is pre-fracture ADL.

THE PREVALENCE OF PRESCRIPTIVE INAPPROPRIATENESS IN HOSPITALIZED ELDERLY USING THE NEW STOPP-START CRITERIA. MULTICENTER OBSERVATIONAL STUDY

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BACKGROUND: Polypharmacy and inappropriate prescribing are risk factors for adverse drug reactions, which commonly cause adverse clinical outcomes in older people. Screening tool of older people's prescriptions (STOPP) criteria identify a list of potentially inappropriate medications (PIM). Screening tool to alert to right treatment (START) criteria indicate potential prescribing omissions (PPO). A new version of STOPP-START criteria has been proposed in 2015 (ref) but few data are available so far with these new version in hospitalized older patients.Aim of this study was to determine the rate of PIM and PPO in the elderly people according to the STOPP & START criteria in two geriatric units (Verona and Bolzano).

METHODS: STOPP-START criteria have been evaluated on 103 subjects (52 women, 51 men). They had a mean age of 83±6 years. Participants were asked to provide their anamnesis, demographic and current medications information.

RESULTS: According to STOPP criteria, 77.67% presented at least one PIM; 226 PIM in 12 of the 13 sections of STOPP criteria were identified among the 103 patients. The most common PIM were: Indication of medication (28.32%), Cardiovascular System (10.62%), Central Nervous System and Psychotropic Drugs (20.35%) and Drugs that predictably increase the risk of falls in older people (22.57%). Polypharmacy (simultaneous use of at least 5 drugs) was identified in 75.73% of the patients. According to START criteria, all the 103 patients presented at least one PPO; 239 PPO in 9 of the 9 sections of START criteria were identified. The most frequent PPO were: Vaccines (56.07%), Musculoskeletal System (17.57%) and Cardiovascular System (15.48%). The same evaluations were performed at patient's discharge showing a reduction of 23.01% of PIM but a 20.05% increase of PPO.

CONCLUSIONS: Inappropriate prescriptions and prescriptive omissions are frequent in hospitalized elderly. Identification and intervention on PIM and PPO is warranted for reducing their clinical consequences.

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THE OPTIMAL USE OF DIRECT ORAL ANTICOAGULANTS IN NON VALVULAR ATRIAL FIBRILLATION

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INTRODUCTION: Patients (P) with NVAF have thromboembolic risk (TR) which is reduced by oral anticoagulant prophylaxis, both Warfarin (W) than DOACs but, today, DOACs are the best choice[1-2]. Major bleeding (MB) is the first safety outcome[1-2]. In our OAC Surveillance Ambulatory (Medicine Unit, Colleferro's Hospital) we followed 426 P with AF evaluating the efficacy/safety of DOACs [Dabigatran (D), Rivaroxaban (R), Apixaban(A) and Edoxaban (E)] *vs* Warfarin (W).

MATERIALS AND METHODS: 74P (39F,35M;76±9ys) with NVAF in W were compared with P in naïve NVAF, of which, 116 in D (61F,55M,77±8ys), 93 in R (33F,60M,75±7 ys), 101 in A (54F,47M,78±7 ys) and 42 (19F,23M,80±9ys) in E. We tested

comorbidity, previous thromboembolic events(TE) and haemorragic events(HE), renal/hepatic diseases, diabetes and cardiovascular events(CE). CHA2DS2-Vasc>1 in men, >2 in women, HASBLED ?3 for all DOACs (2) P. Every P was asked own preference (montherapy/bisdie) before prescribing DOAC. During the observation we evaluated adherence to therapy, TE/HE events in P with 65-75 years and in those with >75 years old, TE/HE events in renal diseases subgroups.

RESULTS: No differences in age and comorbidity, adequate TTR in 48% P in W, adherence >90% in all DOACs, 4 strokes in W and 1 in D, MB ? 4% in W and R, 1 intracranial bleeding in W, digestive HE 2 inW, 1 in D, 3 in R.

DISCUSSION: Poor TTR and strokes events in W group while good adherence in DOACs patients, TEs in DOACs Patients (0.2%) are not frequent at all, no intracranial bleeding with DOACs, HEs (digestive) in R group (apparently not correlated with age), No adverse events in A group, No TE or major bleeding in E group, consistent cases of minor bleeding (5.3%) in DOACs patients, 6% DOACs patients stop therapy caused by minor bleeding's reduction quality of live or due to major events, low adverse events in patients over 75 yrs.

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MULTIDIMENSIONAL PROGNOSTIC INDEX PREDICTS NON-INVASIVE-MECHANICAL-VENTILATION SUCCESS AND MORTALITY IN OLDER PEOPLE WITH ACUTE HYPOXEMIC RESPIRATORY FAILURE

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BACKGROUND: AHRF is a frequent cause of hospitalization in older subjects, mostly considered poor candidates for intubation. NIV may represent a possible alternative to intubation, since affected by lower complications and applied even outside the intensive care units. Few randomised clinical trials support the use of NIV in older patients with AHRF[1] and patients with serious comorbilities are usually excluded. Moreover, no study explored the usefulness of a comprehensive geriatric assessment (CGA) in predicting the NIV clinical outcomes.

AIM: To evaluate the accuracy of the CGA-based MPI to predict NIV outcome in older patients with AHRF.

METHODS: This is a prospective observational study, still ongoing. Inclusion criteria were patients older than 75 years, admitted to an Acute Geriatric Unit, affected by AHRF (PaO2/FiO2 ratio <300) and treated with NIV plus standard medical therapy. MPI was assessed at admission. The primary outcome was 1 year-mortality rate; secondary outcomes were NIV success, *i.e.* improving the oxygenation index (OI, PO2/FiO2 ratio ? 300) and the days of OI improvement. Receiver operator characteristics (ROC) analysis was used to identify the best MPI cut-off to predict mortality in this population (MPI ? 0.78). The chi-squared test was used for subgroups analysis.

RESULTS: We enrolled 15 patients (10 females, mean age 86.7±5.2 years, mean MPI 0.75±SD), 8 with MPI ?0.78 and 7 with MPI <0.78. At baseline, no differences in arterial blood parameters (PO2, PCO2, PaO2/FiO2 ratio) were observed between patients with MPI lower or higher than 0.78. MPI values ?0.78 (p<0.05) and NIV failure (p=0.001) were significantly associated with 1-year mortality. NIV success was significantly higher in patients with lower MPI (p<0.05), regardless of basal PaO2/FiO2 ratio. In NIV success group patients with MPI <0.78 improved oxygenation index in fewer days (mean days: 4 *vs* 8, p=0.06).

CONCLUSIONS: In frail older patients with AHRF, MPI predicts 1-year mortality and NIV success, in terms of OI improvement and the time of OI improvement. Moreover, in patients with lower MPI values, NIV could reduce the mortality risk. More data are needed to confirm this preliminary findings.

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EFFECTS OF THE AVAILABILITY OF DIRECT ORAL ANTICOAGULANTS IN THE PRESCRIPTION OF ANTICOAGULATION IN ELDERLY STROKE PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION

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BACKGROUND: Due to thromboembolic risk, oral anticoagulation (OA) is highly recommended in the prevention of recurrence in stroke patients with Non-Valvular Atrial Fibrillation (NVAF). Whereas treatment options with Vitamin K antagonist (VKA) in several condition are limited, especially in older patients, direct oral anticoagulants (DOACs) seem to provide a safer and more versatile alternative. However, in many regions only designated specialists can prescribe them -usually cardiologists.

AIM: The Authors evaluated the effects of the availability of DOACs on the prescription of oral anticoagulants in patients with NVAF-related cardioembolic stroke at discharge from a Stroke Unit Area located in a Geriatric ward. The primary outcome was to assess if the percentage of patient in oral anticoagulant increased. The secondary outcome was to assess if age correlates with difference in prescription of OA.

METHODS: Retrospective cohort observational study on patient hospitalized after a NVAF-related cardioembolic stroke in 4 consecutive years since 2013 (when only VKA was available) to 2014-2016 (when both VKA and DOACs were available). Cohorts were compared according to age, sex, CHA2D2SVASc total score and single items, renal function (eGFR), and the presence of dementia. Patients were grouped according to age in 80 year-old *vs* 80 year-old and differences in prescription were assessed. Statistical analysis comparing frequencies and means was performed using ANOVA.

RESULTS: The percentage of patients discharged with oral anticoagulation increased from 42,6% in 2013 to 63,7%-56,9%-57,6% respectively in 2014-15-16. In the group of younger patients the percentage raised from 61,9% in 2013 to 87,5% in 2016. In the group of older patients the prescription raised from 33% in 2013 to 53.8%-56,2%-50% in 2014-15-16. Neither renal function nor dementia were related to the lower DOACs prescription in older patients.

CONCLUSIONS: Despite DOAC availability has increased oral anticoagulation after acute stroke, about half of older patients did not receive the recommended treatment

IDENTIFICATION AND TREATMENT OF PAIN IN ELDERLY PATIENTS WITH COGNITIVE IMPAIRMENT IN AN ACUTE GERIATRIC WARD

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BACKGROUND: Pain is one of the most frequent problems in elderly patients. The complexity of pain assessment in geriatric patients requires a multidisciplinary approach for diagnosis and management. The inability to communicate pain, typical of patients with dementia, could lead to underestimate and under-treat this problem. Specific assessment scales to identify pain in people with dementia have been recently proposed.

AIM OF THE STUDY: Our study aims to evaluate pain in patients suffering from CI by means of specially designed scales and to compare these results with the assessment carried out with the scale currently used in our department (VAS scale).

METHODS: All patients with dementia (Clinical Dementia Rating scale >3) hospitalized in Geriatric ward of Maggiore Hospital in Trieste will be included. Pain assessment will be performed every day using at the same time the Numeric Rating Scale (NRS), and the Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC) scale. After drug administration, all patients will be re-evaluated and new scale values noted. We will note age, gender, MMSE value, Barthel , ADL, IADL, CIRS scale, Norton scale, GDS, MPI. We will also record the prescribed drug and dosage.

CONCLUSIONS: This study will confirm that self-reported pain assessment alone is not sufficient to detect pain in elderly people with dementia; the observational tool is a necessary and suitable way of assessing pain in patients with CI.

OSTEOPROTEGERIN AS A NOVEL MARKER OF PROGNOSIS IN ELDER PATIENTS: A COHORT STUDY

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BACKGROUND: Osteoprotegerin (OPG) is a cytokine in the tumour necrosis factor receptor superfamily. OPG has been linked to cardiovascular disease and to the development of heart failure after myocardial infarction. In patients with chronic heart failure, OPG levels are associated with mortality in patients with systolic heart failure of any cause.

AIM: We aimed to elucidate in detail the role of OPG as a marker of mortality and CV risk, especially in elder subjects suffered from heart failure. Therefore, we explored the possible link between OPG, sarcopenia and malnutrition.

METHODS: This is a cohort, multicentre study. Elder patients (>65 ys) were collected and followed up for 3 years. Participants were separately divided into quartiles according to their baseline OPG levels and descriptive analyses of baseline characteristics were performed. Cumulative event rates (mortality, CV events) were calculated across quartiles of OPG with the Kaplan-Meier method and compared by use of a trend test. Cumulative event rates were also calculated stratifying patients on the basis of OPG levels and diagnosis of sarcopenia and/or malnutrition. Models were adjusted for the following clinical risk factors: age, sex, drugs, history of hypertension, history of diabetes mellitus, tobacco use, prior CV events, left ventricular ejection fraction, cognitive function.

RESULTS: Among the 324 participants with a baseline measurement, the median level of OPG was 6.9 pMol/L. Sarcopenia and malnutrition showed to be significantly associated with elevation of serum OPG. Before and after adjustment for traditional clinical risk factors, elevated concentrations of OPG (4th quartile group) remained independently associated with an increased risk of mortality or CV events (especially MI).

CONCLUSIONS: Elevated serum OPG seems to be associated with an increased mortality and CV events. Further studies needed to explain the specific role of this protein in this particular type of patient.

THE INTRODUCTION OF A STANDARDIZED FALL'S RISK PROCEDURE: A WINNING METHOD FOR REDUCING FALLS IN THE FRAIL ELDERLY PATIENTS

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BACKGROUND: The phenomenon falls in constant growth in these years.The introduction of the fall risk procedure aims to reduce the risk of hospitalized patients and, if a fall occurs, reduce the consequences, thus preventing the sentinel event "Death or serious damage due to patient fall" in the structures of the institution, further objectives are: to monitor the phenomenon, to standardize the reporting method to sensitize the operators. A training course for all the figures followed the intoduction of the procedure. In order to involve the caregivers in the prevention the geriatrics staff has created an informative brochure on non-pharmacological interventions.

OBJECTIVES: Of the study verify the effectiveness of the interventions carried out by analyzing the reports of the fallen event to highlight any need for revision.

METHODS: The survey was carried out in 2 Geritric Units, taking into consideration 3months before the transposition of the procedure and 3months after the implementation of the procedure with training path to all the staff dedicated to assistance.

DISCUSSION: The total number of hospitalizations for each period was considered the total number of falls. the data show a fall of 46% in the total events that occurred in the comparison between the previous period and the period following the implementation of the procedure. The decrease in cases is also shown by the figure calculated with the number of events that fell on the total number of patients admitted to the facilities, in the first period the number of falls on hospitalizations was 5% in the second period analyzed and decreased to 3% both data show that the strategies implemented are functional to achieving the goal.

CONCLUSIONS: The nurse in this context plays a pro-active and decisive role starting from the early detection of patients at risk of falling a proper care response to the management of the needs defined in the team with the involvement of the caregiver

EFFECTS OF A MULTIDIMENSIONAL INTERVENTION IN ELDERLY PEOPLE WITH MILD COGNITIVE IMPAIRMENT. A 2-YEARS LONGITUDINAL ANALYSIS FROM "MY MIND PROJECT"

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BACKGROUND: Aging is often associated with impairment in cognitive functions and abilities. These deficits could predict conversion to dementia, such as Alzheimer's disease. The identification of psycho-social interventions for preventing the progression from mild cognitive impairment (MCI) to dementia is necessary. Aim: To analyse the effects of a multidimensional psycho-social intervention in subjects with MCI.

METHODS: Data from a sample of 109 community-dwelling elderly subjects (mean age=75,9±6,0) diagnosed with MCI and recruited in My Mind Project (cod. 154/GR-2009-1584108, founded by the Italian Ministry of Health and the Marche Region) were collected. Subjects were randomly assigned to the experimental group or the control group, according to a prospective, randomized

intervention study, using a multidisciplinary and metacognitive approach. Cognitive, functional, psychological and clinical outcomes have been analysed before intervention (baseline), immediately after termination (follow-up 1), after 6 months (follow-up 2) and after 2 years (follow-up 3). General linear models were used to analyse the effect of intervention in the outcome measures.

RESULTS: At the end of the intervention, a positive effect of treatment on cognitive, functional and metacognitive outcomes was observed in experimental group. Benefits of intervention were maintained only in some cognitive and noncognitive outcomes, as observed at follow-up phases.

CONCLUSIONS: The used multidimensional intervention had a positive effect in subjects with MCI. The use of metacognitive approach could be useful to provide positive management of cognitive decline and improvement of quality of life in elderly at risk of dementia.

DELIRIUM DAY 2017: GERIATRIC UNIT DATA

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BACKGROUND: Delirium is an acute confusional state, triggered by clinical problems and leads to adverse outcomes (disability, institutionalization, costs and mortality). The multicenter "Delirium Day" study evaluates the prevalence of delirium in different settings and the main Geriatric and Internal Medicine scientific societies (AIP, SIGG, FADOI) was involved to this study. Aims: to evaluate the prevalence of delirium in one day through the application of 4AT and his association with the duration of hospital stay.

METHODS: We evaluated all patients admitted to our unit on September 27th 2017. All eligible patients were evaluated through the CGA (Comprehensive Geriatric Assessment) and for cognitive screening we used the 4 AT test.

RESULTS: 12 patients were enrolled in the study according to the eligibility criteria. The median age was 81.5 (±7). The Charlson index was 3.7. The BADL preserved were 2.9/6 of average, drugs taken were 7.6 (±3). At the 4-AT test 4 patients had delirium (2 patients had hypokinetic delirium, one hyperkinetic and one mixed type). Patients with delirium had a median hospital stay of 34 days (±12).

CONCLUSIONS: Our prevalence of delirium was 33% (18-36%) similar to data of current literature. In our patients the delirium has affected the length of stay, there weren't deaths, probably due to the rapid diagnosis and the correct therapeutic management. Delirium remains a marker of patient frailty and clinical instability.

VITAMIN D AND COMORBIDITY AMONG HOSPITALIZED OLD AGE SUBJECTS

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INTRODUCTION: Hypovitaminosis D is a highly prevalent condition in old age subjects, with rates ranging from 50% to 90% depending on the clinical setting. It is well established that an inverse associations exists between 25(OH)D serum levels and cardiovascular, infectious, neurologic diseases, glucose metabolism disorders and all-cause mortality. Whether 25(OH)D is the cause or a marker of organ diseases is still under debate. In addition, the burden of comorbidities in this relationship remains unknown. We aimed at investigating whether comorbidities were associated with serum 25(OH) D levels in geriatric inpatients.

METHODS: This is a retrospective study, including 308 subjects consecutively admitted to an acute care geriatric unit with available data of 25(OH)D serum levels. 25(OH)D serum levels were defined according with the following cut-off: 50-30 (optimal range), 29-20 (insufficiency), 19-10 (deficiency), and <10 (severe deficiency). Comorbidity was assessed using the Cumulative Illness Rating Scale - Geriatric (CIRS-G). Two summary measures were obtained: the illness Severity Index (CIRS-SI) and the Comorbidity Index (CIRS-CI).

RESULTS: 157 (74.10%) women and 55 (25.90%) men with mean age of 85+6 years old. Overall, the burden of comorbidity was 1.89+1.33 for CIRS-CI and 1.15+0.41 for CIRS-SI. 25(OH) D serum levels were 14.5+12.4 ng/ml, with 90.9% of subjects having insufficiency and 46.1% with severe deficiency. An inverse correlation was found between 25(OH)D and both CIRS-SI (r -0.325; $p<0.0001$) and CIRS-CI (r -0.317; $p<0.0001$). Independent of age, gender, season, smoking habit and renal function, an inverse association between 25(OH)D and both CIRS-SI (?: -5.23; $p=0.001$) and CIRS-CI (?:-1.70; $p<0.0001$) was confirmed.

CONCLUSIONS: These findings support the hypothesis that in hospitalized very old subjects lower 25(OH)D serum levels is associated with higher comorbidity burden.

THERAPY OPTIMIZATION OF HEART FAILURE IN THE LIGHT OF NEW KNOWLEDGE: A CASE REPORT

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BACKGROUND: New recommendations for prolonging survival have been applied to patients with heart failure in the light of new trials (PARADIGM-HF; EMPA-REG).

AIM: We examined a case report to evaluate the applicability of the European Society of Cardiology (ESC) indications in clinical practice in elderly patients.

METHODS: We took care of a 70-year-old diabetic patient with heart failure, in therapy with ramipril 10 mg, digital 0.125 mg, spironolactone 25 mg, simvastatin 10 mg, acenocoumarol 4 mg, symptomatic for cough and dyspnea. Anthropometric (weight 78 kg), biochemistry (glycemia 180 mg/dl, BNP 670 pg/ml, creatinine 1.43 mg, mixed dyslipidemia) clinic (NYHA 3, perimalleolaris edemas, dyspnea grade 2 according to MRC) and instrumental (AF to EKG; accentuation of the interstitial plot with bilateral small pleural effusion to the thorax; echocardiogram:"dilated cardiopathy with EF 37%, biatrial enlargement, right systolic hypofunction - TAPSE 1.5 cm -, severe mitro-tricuspidale insufficiency, pulmonary hypertension - PAPs 107 mm Hg - calcified aortic stenosis) evaluation.

RESULTS: We opted to increase diuretic therapy (furosemide 500 mg, spironolactone 50 mg), to introduce empaglifozin 10 mg, to decrease digital to 0.0625 mg, after weight loss obtained (74 kg), to switch from ramipril to sacubitril/valsartan 49/51 mg, from acenocoumarol to warfarin and from simvastatin to atorvastatin 10 mg, combining antibiotic therapy (levofloxacin 500 mg) for ten days. Home discharge.

CONCLUSIONS: At follow-up, stable weight loss, improvement of dyspnea and severity of tricuspid insufficiency and PAPs, disappearance of cough and pleural effusion, good general conditions.

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A BAD COMPLICATION OF IMPLANT PLACEMENT IN A ELDERLY

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BACKGROUND: The Viridians streptococci are a group of Gram positive cocci, composed of heterogeneous groups. They are pathogens with low virulence that are generally present in the mouth. Streptococcus gordonii is also a cause of infective endocarditis (IE).

METHODS: A 65 year-old male, with in anamnesis arterial hypertension, was admitted for the presence of asthenia, general malaise for about a month and a lipotymic episode; he reported no fever. The patient suffered from poor dental hygiene and 6 weeks earlier he underwent implantology. There was a 3/6 systolic murmur with maximal intensity at the apex, with laboratory testing revealeing an ESR of 78 mm, C-reactive protein 10,7 mg/dl.

RESULTS: We performed a transthoracic echocardiogram, which highlighted: left ventricle of normal size with conserved global contractility. EF 65%. Mitral valve with movable but very thickened and redundant flaps, especially on A2, P1-P2 scallops. Enlarged left atrium (Vol LA/BSA 35ml/mq). Right atrial area 14.4 cm2. Doppler and color: mitral insufficiency of moderate degree. Tricuspid insufficiency of mild to moderate degree. PAPs 45 mm Hg. Pseudonormalized pattern. Transesophageal echocardiogram: presence of a, mobile, threadlike mass with an inhomogeneous and fluctuating echo-structure on LPM (dimensions 2.2 cm) at the level of P2. Two blood cultures yielded alpha-haemolytic streptococci, subsequently identified as S. anginosus and S. gordonii. We started on continuous, intravenous antibiotic therapy, but the size of the vegetations convinced us to start the patient in a cardiosurgical consultation, which gave indication to the intervention, which took place successfully.

CONCLUSIONS: A correct oral hygiene is a practice to be treated in the elderly patient, but it is necessary to bear in mind that normal dental practices can result in low-grade bacteraemia that, in subjects with valvular damage (also caused by hypertension) can cause IE.

TAKO-TSUBO CARDIOMIOPATHY: AN UNUSUAL CASE REPORT IN A WOMAN AFFECTED WITH ALZHEIMER'S DISEASE

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BACKGROUND: Tako-tsubo syndrome is a stress-induced cardiomiopathy that involves left ventricular apical akinesis and mimics acute coronary syndrome. It was described in Japan in 1991. The main symptoms are chest pain, ST-segment elevation on electrocardiography (ECG), and elevated cardiac enzyme levels.

CASE REPORT: An 85-year-old woman was affected with Alzheimer's disease (AD), hypertension, depression with behavioral disorders and diabetes. She was on treatment with valsartan 160/12.5 mg, donepezil 10 mg/day, aspirin 100 mg, metformin 500 mg after meals, promazine 20 mg as needed. Patient suddenly started to have recurrent syncopes. She was brought to the ER, where she was found to have high levels of proBNP (10936 pg/ml). ECG showed anteroseptal myocardial infarction, with mild elevation of cardiac enzymes. She was hospitalized at the ICU and underwent cardiac angiography. Left ventricular apical ballooning was present, but there was no significant coronary artery stenosis. Clinical course was without complications. Color Doppler cardiac ultrasound showed increased parietal thicknesses of the left ventricle, which caused dynamic obstruction and mild hypokinesia of the apex. Doppler ultrasound showed increased aortic trans-valvular flow rate with Pmax 37 mmHg, inversion of the E/A ratio (for altered left ventricular compliance). Therefore Tako-Tsubo syndrome was diagnosed.

CONCLUSIONS: Tako-Tsubo is a rare disease (1:36.000) with 1:3 male/female ratio; it is even rarer to find it in an over-80-year-old patient with AD. Maybe it is caused by endothelial damage of the subepicardial vessels. The fall in estrogens, the dysfunction of catecholamine-mediated microcirculation, due to emotional stress, could trigger the syndrome. Myocardial dysfunction at the apex of the left ventricle could be due to the higher presence of adrenergic receptors in this area. Survival is usually 96%; other possible complications are cardiac arrest, heart failure, potentially lethal ventricular arrhythmias and myocardial rupture. It is treated with beta-blockers, diuretics, ACE-inhibitors, aspirin. Recovery is usually spontaneous and occurs within a few weeks.

CLINICAL CHARACTERISTICS AND POST HOSPITALIZATION OUTCOMES OF OLDER PEOPLE WITH HIP FRACTURE: RESULTS FROM GIOG SURVEY IN FERRARA

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BACKGROUND: In older people, hip fractures often lead to disability and death.Aim: to describe the main clinical features and methods of management of elderly hip fracture patients and to evaluate outcomes including delirium, walking recovery and 30-day mortality.

METHODS: Data from the multicentric study GIOG "Register of femoral fractures in Italian Orthogeriatric Units" were collected on 432 older patients, hospitalized in Orthopedic Unit of the Ferrara University Hospital for hip fracture, between February 2016 and October 2017. A telephonic 30-day follow-up was performed in a subgroup of 126 patients.

RESULTS: 52.7% aged ? 85, 73.6% were female, 91.7% living at home; 35.9% had cognitive impairment before surgery, 63.7% able to walk independently or with a single walking aid, 89% were not receiving any therapy for osteoporosis. Most common types of fracture were intracapsular (45.1%) and intertrochanteric (44.9%). Surgery was carried out within 48 hours from admission in 68,1% of cases. Almost all patients had ASA III-IV scores (93%) and underwent spinal anesthesia (97.9%). Intramedullary nail osteosynthesis (50.6%) and partial hip replacement (33.3%) were the most frequent types of surgery. In 72.2% of cases was indicated a full bone loading on operated limb. 25% of patients developed post-surgery delirium that was significantly correlated with age, sex, ASA class, cognitive status and walking ability. In-hospital mortality was 1.6%. Among the 126 patients that responded at the 30-day phone interview, 35.3% were able to walk, but only 9% were fully independent and 7.9% died in the first month after hospital discharge.

CONCLUSIONS: These data suggest that majority of patients are managed according to current orthogeriatric guidelines. The higher incidence of poor clinical outcomes including delirium and poor walking recovery is mainly correlated with the

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higher level of multimorbidity and functional disability present before the fracture.

THE PROGNOSTIC ROLE OF POST OPERATIVE DELIRIUM ON FUNCTIONAL RECOVERY, COGNITIVE PERFORMANCE AND MORTALITY IN HIP FRACTURED ELDERLY PATIENTS

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BACKGROUND: Elderly patients with hip fracture are particularly exposed to Post Operative Delirium (POD) with an incidence that can reach 60%. POD is a negative prognostic factor for short and long-term outcomes such as hospital length of stay (LOS), cognitive and functional performances, risk of re-hospitalization, institutionalization and mortality.Matherials and

METHODS: In the context of a prospective observational study, we collected consecutively from January to May 2017 at the Orthogeriatric Department of S. Orsola-Malpighi Hospital in Bologna, 80 patients aged ?75 years with proximal hip fracture candidate for early surgery (within 48 hours from hospital admission). Diagnosis of POD was made according with DSM V criteria applying CAM (Confusion Assessment Method) and 4AT scales. For the severity of delirium we used DOM (Delirium O Meter, range 0-36) scale. At a 3 months telephone follow up (FU) we collected the following informations: rates of re-hospitalization, cognitive and functional worsening (SDS, Barthel Index, ADL, IADL), or patient's death. We defined two study groups on the basis of the presence of POD.

RESULTS: Twenty eight patients presented POD during hospitalization (28/80, 35%) with an average duration of 1.93 days. In the POD group the average score of DOM was 11.89 (range 6-22). Patients in the POD group developed a higher incidence of perioperative complications (particularly urinary tract infection and heart failure) and experienced a delay in the beginning of physiotherapy. FU data shows that patients in the POD group got worse both cognitively (Delta SDS p=0.02) and functionally (Delta Barthel Index p=0.01 and the Delta IADL p=0.04) more than the control group. Furthermore re-hospitalization was more frequent in the POD group (26% *vs* 17%, p=0.04). Three months overall mortality rate was 7%, with a significantly higher prevalence in the POD group (4/5, p=0.034).In our study duration and intensity of POD did not influence functional and cognitive outcomes and mortality (p=n.s.).

CONCLUSIONS: Our results confirm hip fracture, in the elderly patients, as a condition with high incidence of complications, poor functional recovery, cognitive worsening and high mortality. The POD itself dramatically worsens all the outcomes, but not its duration or intensity. Since multidisciplinary and multi-professional Orthogeriatrics model has already proved to be effective in the prevention of POD, our results highlight the need to keep on improving and promoting this model.

OUTCOMES BETWEEN ANTIPLATELET THERAPY AND ORTHOGERIATRIC PATIENTS

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BACKGROUND: Hip fracture is a common occurrence especially in frail older people with multiple comorbidities, including those of a cardiovascular nature, which often involve chronic antiplatelet therapy.

AIM: In particular, the use of Clopidogrel and Ticlopidine hinders an early surgical intervention for a supposed increased risk of peri-operative bleeding or linked to anesthetic procedures that require a wait for intervention that can reach 10 days, worsening therefore the outcome of the patients.

METHODS: In 1101 orthogeriatric patients [M: 22%, F: 78%, average age: 84.5, standard deviation: 7.3 (median: 85; first quartile: 80; third quartile: 90)], we assessed association between therapy taken (ASA: 33%, Ticlopidine: 1.8%, Clopidogrel: 2.9%, nothing: 51%) and waiting time of surgical intervention, duration of hospitalization, re-hospitalization and short-term mortality (at 7 and 30 days).

RESULTS: From the statistical analysis, there was a close correlation between short-term mortality (7 and 30 days) and waiting time for surgery and also a relationship between the 30-day survival and the length of stay. The waiting time of surgical procedure is closely linked to the therapy taken. Patients taking acetylsalicylic acid or no therapy are operated before (median 39 hours), while patients on Clopidogrel and Ticlopidine have a significantly higher waiting time (median of 144 hours). The hospital stay of those taking Clopidogrel or Ticlopidine are longer (18 days) than those taking acetylsalicylic acid or no antiplatelet therapy (12 days) (p <0.001). The data concerning rehospitalization showed values that are in line or better than those present in the literature[1,2]. Specifically, it was equal to 2.2% of the sample at 7 days after hospital discharge, and then grow to 6.1% at 30 days. It was also assessed in-hospital mortality and mortality at 7 and 30 days after discharge. Intra-hospital mortality was 1.36%, 7 days after discharge of 0.64% and then rising to 4% at 30 days [overlapping or slightly lower percentages compared to the literature[3,4,5,6,7,8,9]].

CONCLUSIONS: We found evidence that re-hospitalization and short-term mortality are mainly affected by the length of stay, which is conditioned by waiting time of intervention. Patients on antiplatelet therapy with Clopidogrel and Ticlopidine are particularly problematic. In this case, surgery for femoral fracture should be considered as an emergency, to be implemented with possible availability of a platelet pool, and using, in risk-benefit ratio, general anesthesia to avoid the risk of peridural hematomas described under spinal anesthesia.

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THE EFFECTIVENESS OF MUSIC ON AGITATION OF THE ELDERLY HOSPITALIZED PATIENT: PILOT STUDY

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INTRODUCTION AND AIM: The hospital ward can be a stressful place for the elderly patients, who may be prone to agitation and resistive to care. The aim of this study is to evaluate the effectiveness of music on mood and agitation of elderly hospitalized patients who are affected by cognitive impairment on admission. The hypothesis is that music enhances mood and reduces agitation.

MATERIALS AND METHODS: Cognitive impairment was evaluated through the SPMSQ test. Twenty-one patients were recruited and randomly assigned into two groups: a selection of songs, chosen by a music therapy expert, were proposed to the first group, whereas the second group was assigned nothing. In order to measure the effectiveness of the intervention, assessment was conducted on admission and on discharge using the Cornell and Cohen Mansfield Agitation Inventory Scales.

RESULTS: Data collected show a statistically significant reduction in average scores of the Cohen scale (t=-9,904; p<0,05) and Cornell scale (t=-6,045; p<0,05) in the experimental group on discharge.

DISCUSSION: The use of music is significantly effective in reducing agitation and improving mood in cognitive compromised patients. The results obtained are similar to other studies reported in the literature.

CONCLUSIONS: Music can be a helpful tool for the nurse who needs to handle agitation. This generates benefits for the patient, is economical, effective and free from side effects.

MALNUTRITION OF HOSPITALIZED FRONT PATIENT: HOW IT IS PERCEIVED BY NURSES

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INTRODUCTION AND AIM: Malnutrition in elderly hospitalized people is a frequent problem representing a negative impact on patients' cares. The aim of this study is to look into nurses' attitudes about malnutrition and nutritional assistance on elderly patients.

MATERIALS AND METHODS: 16 nurses working in the Geriatric Department took part to this study. Their attitudes where evaluated through the "Staff Attitudes To Nutritional Nursing Care Geriatric Scale", composed by 18 items. A rating ? 72 represents a positive attitude.

RESULTS: Only 31% of the nurses found the nutritional assistance for the elderly hospitalized people crucial for their cares, while for the other 69% emerged a neutral or negative attitude.In the queries concerning the area of interventions and individualization, there was the highest percentage (69%) of responses reflecting positive attitudes related to the problem.

DISCUSSION: The results obtained confirmed what found in the medical literature. It would be useful to increase nurses' attention about malnutrition, introducing MNA in the daily activities and training nurses regarding the importance of a good nutritional assistance.

CONCLUSIONS: This study shows that currently nursing staff attitudes towards malnutrition is absolutely inadequate: there is a strong need to raise levels of awareness about this subject.

MULTIDIMENSIONAL PROGNOSTIC INDEX PREDICTS DELIRIUM IN OLDER PATIENTS WITH HIP FRACTURE WHO UNDERWENT SURGICAL INTERVENTION

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BACKGROUND: Hip fractures precipitate several acute adverse outcomes in elderly people, thus leading to acute adverse outcomes.

AIM: To evaluate whether the MPI may predict delirium in older individuals admitted to the hospital for hip fracture who underwent a surgical intervention.

METHODS: This was a retrospective observational cohort study on older patients aged ?65 years, admitted to the OrthoGeriatrics Unit for hip fracture. At baseline the MPI was calculated by using a validated algorithm that included information on basal and instrumental activities of daily living (ADL, IADL), cognitive status (SPMSQ), nutritional status (MNA-SF), the risk of pressures sores (Exton-Smith scale), co-morbidity (CIRS), number of drugs and co-habitation status. According to previous cut-off analyses, MPI was expressed in three grades, *i.e.* MPI-1 (low-risk), MPI-2 (/moderate-risk) and MPI-3 (high risk of mortality) Delirium was assessed by nurses and physicians during the hospitalization by means of 4 AT test. Covariates included age, sex, baseline mobility and functional status, preoperative cognitive impairment, and post operative complications were also assessed.

RESULTS: 247 older patients (mean age 85±6.9 years; Females=208, 84,2%) who underwent surgery for a hip fracture were included. During hospitalization 104 subjects (41%) received a diagnosis of delirium. Patients with delirium showed higher pre-operative cognitive impairment (p=0.000), lower baseline functional status (p=0.001) and were older than patients who did not experience delirium. Logistic regression analysis demonstrated a significant association between MPI grade and delirium (p=0.04). MPI score demonstrated a significant association with delirium (p<0.0001). Overall, the incidence of delirium during hospitalization was significantly higher in patients with more severe MPI score.

CONCLUSIONS: MPI predicts delirium in older patients with hip fractures who underwent surgical intervention.

MANAGEMENT OF CHRONIC CONSTIPATION IN GERIATRIC PATIENTS: FIVE YEARS PROSPECTIVE STUDY

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Chronic constipation (CC) is one of the most frequent intestinal disorders in daily medical practice. Two pathophysiological conditions are recognized: Slow Transit Constipation (SRT) characterized by prolonged transit time of stools,and Dyssynergic Defecation (DD) due to difficult or unsatisfactory expulsion of stool. Literature data suggest an important role in anorectal biofeedback, especially in DD. In this study we have reported our data on the management of elderly patients in a geriatric clinic dedicated to the treatment of chronic constipation. From June 2012 to June 2017, 908 patients with constipation - mean age 62±18.7 years, 337 M, 571 F, have been evalutated according to the criteria of Rome III, the Bristol scale (constipation=stool type 1-3) and the Wexner scale (constipation =>5/30). After exclusion of secondary constipation, hygienic/dietary requirements, fibers and/or osmotic laxatives, plus short-term irritable laxatives have been prescribed. Patients who did not report treatment benefits after 3 months were treated with second-level drugs (prucalopride and / or linaclodide) and subsequently re-evaluate through functional tests included intestinal transit time and anorectal

manometry, and, if indicated , initiated for rehabilitation treatment.59 patients with DD performed pelvic floor rehabilitation with bio-beedback for 60 days, equivalent to 20 sessions. In 49 (81,35%) patients, there was considerable benefit, objectivable by reduced abdominal symptoms, macrogol assumed, improvement of items detected through the Wexner scale, and sometimes through normalization of anorectal manometry.In our case, 63% of patients with CC benefited from the dietetic and laxative therapy. In non-responders with DD, biofeedback treatment has allowed a significant improvement in intestinal disorders. Rehabilitation of the pelvic floor by bio-feedback confirms an effective procedure in the treatment of refractary constipation.

ACUTE PSYCHOSIS IN A PATIENT WITH METABOLIC DISORDER AND ANTIEPILEPTIC THERAPY WITH LEVETIRACETAM

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BACKGROUND: Psychotic disorder is defined by the presence of delusions, hallucinations, disorganized thinking, and abnormal motor behaviour persisting for at least one day. Delirium is defined as an acute fluctuating alteration of attention and consciousness with cognitive disturbance secondary to several precipitating factors (*i.e.* infections, metabolic or endocrinological disorders, drugs). The prevalence of delirium in hospitalized older adults is estimated between 14 and 24%, whereas overall antiepileptic drug-induced psychosis is reported between 1 and 8.4%; among them, levetiracetam is frequently involved.

AIM: To present a case of acute psychosis in a patient with acute renal failure, hypercalcemia, pneumonia, and treated with levetiracetam.

PATIENT: A 68yo woman with recent history of generalized tonic clonic seizures treated with levetiracetam 500 mg bid presented to the ER with confusion and disorientation after an accidental fall with consequent head trauma. Her behaviour fluctuated from agitation to drowsiness. Physical examination was normal. Blood tests showed metabolic alkalosis, impaired renal function, hypercalcemia, leukocytosis and elevated CRP levels. Lung X-ray showed possible pneumonia. Brain CT was normal. Antibiotic therapy, i.v. fluids and furosemide were administered with improvement of pulmonary and renal function as well as of laboratory data. Consciousness improved within 2 days, with development of acute psychosis with structured persecutory delusions and visual hallucinations. EEG and brain MRI were normal. In the hypothesis of psychotic symptoms induced by levetiracetam, the drug was discontinued with symptoms resolution.

CONCLUSIONS: Differential diagnosis of acute psychosis may be challenging. In the evaluation of possible triggers, Levetiracetam therapy must be considered.

IMPACT OF THE INTRODUCTION OF A PROACTIVE VASCULAR PLANNING IN AN ONCOGERIATRIC CONTEXT. AN OBSERVATIONAL STUDY

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BACKGROUND: Over 50% of hospitalized patients receiving intravenous therapy have a difficult venous access (DIVA) due to various risk factors, especially the age, the presence of tumors treated with chemotherapy, multimorbidity, repeated and prolonged hospitalizations. This entails the need to use suitable proactive vascular planning in the clinical practice, in order to evaluate, plan and choose the right vascular device for patients, preventing complications related to peripheral venous access.

AIM: To evaluate the impact of the introduction of a proactive vascular planning for the choice of vascular devices in a oncogeriatric context.

METHODS: Observational study conducted in oncologic-rehabilitation department at the Pio Albergo Trivulzio in Milan FROM 11/2016 TO 3/2018. For each patient at the entrance, peripheral veins were assessed through the compilation of the specific rating scale, for the choice of a suitable device between PICC (Peripherally Inserted Central Catheter), MIDLINE, MINIMIDLINE or traditional agocannula.

RESULTS: From 11/2016 to 3/2018, 52 PICCs were implanted (for patients receiving chemotherapy, total parenteral nutrition, repeated transfusions, with an average of 65 days), 20 MIDLINE (for patients undergoing long-term infusion therapies and intermittently, with an average of 34 days), 16 MINIMIDLINE (for patients with compromised peripheral veins requiring only continuous infusional therapy). Of these 86 patients 16 were discharged with the device, to ensure continuity of the care plan.

CONCLUSIONS: The proactive vascualr planning introduced in the oncogeriatrico department has increased the safety and quality of life of the patient oncogeriatrici in clinical practice, planning the implantation of the suitable vascular device for the administration of intravenous therapy, decreasing the complications related to peripheral venous accesses and it is a prerequisite for any improvement and patient care according to evidence based practice.

DEVELOPMENT AND VALIDATION OF A SELF-ADMINISTERED MULTIDIMENSIONAL PROGNOSTIC INDEX (SELFY_MPI) TO PREDICT NEGATIVE HEALTH OUTCOMES IN COMMUNITY-DWELLING PERSONS: RESULTS FROM THE EUROPEAN PROJECT EFFICHRONIC

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BACKGROUND: EFFICHRONIC is an EU co-funded project (Health Programme, 2014-2020, Ref:738127) aimed to provide evidence on the effect of using the Chronic Disease Self-Management Program (CDSMP) in 5 European countries (France, Italy, The Netherlands, Spain, UK) in vulnerable population. To stratify the vulnerable groups/individuals a multidimensional assessment was implemented. The Multidimensional Prognostic Index (MPI) is a Comprehensive Geriatric Assessment(CGA)-based tool that very accurately predicts negative health outcomes, *i.e.* hospitalization, institutionalization, need for homecare services and mortality in subjects with different diseases and in different settings. To calculate the MPI, validated tools exploring daily functioning, cognition, nutrition, mobility, co-morbidity, medication and co-habitation status are assessed by health care professionals according to the multidimensional assessment methodology.

AIM: To develop and validate a self-administered MPI (SELFY_MPI) in community-dwelling subjects.

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METHODS: We enrolled 167 subjects (mean age=67.3 years, 51%=males, range=20-88 years). All subjects underwent a CGA-based assessment by health professionals to calculate MPI and the SELFY_MPI. The SELFY_MPI included the assessment of: 1) basic and instrumental activities of daily living (ADL, IADL), 2) mobility (Barthel), 3) memory (Test Your Memory,TYM), 4) nutrition (Mini Nutritional Assessment-Short Form,MNA-SF), 5) co-morbidity (Cumulative Index Rating Scale,CIRS), 6) number of medications, and 7) socio-economic situation (Gijón scale). The Bland-Altman (BA) methodology was used to measure the agreement between MPI and SELFY_MPI, plotting the difference against the average of the two measures to get 95% confidence limits of agreement for clinical consideration.

RESULTS: The mean MPI and SELFY_MPI values were 0.147 and 0.145 respectively. The mean difference was +0.002±0.07 SD (Standard Deviation). Lower and Upper 95% limits of agreement were -0.135 and +0.139, respectively, with only 5 of 167 (3%) of observations outside the limits. Deviation between two measurements was not clinically significant and visual inspection of BA plot did not provide evidence of any trend along MPI scale. Stratified analysis by age provided similar results for younger (? 65 years old, No. 45 subjects) and older subjects (>65 years, 122 subjects). The analysis of variances in subjects subdivided according to different year decades showed no differences of agreement according to age.

CONCLUSIONS: The SELFY_MPI can be used as a predictive tool in subjects of different ages.

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IDENTIFICATION OF THE NURSE'S ROLE IN A BONE AND FRAILTY OUTPATIENT CLINIC

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INTRODUCTION: Falls in older people is a major problem. In the communityone in three of people aged 65 and over falls at least once a year.Falls are related to balance and gait impairment as an outcome ofmultiple factors: sarcopenia, sensory and sensitive impairment,neurological and cardiovascular diseases.

AIM: To identify the nurse's role in the outpatient care and folllow-upof older people at risk of falls.

METHODS: Context analysis (Galliera Hospital, geriatric Unit): organization, research and medical care, identification of areas ofnurse intervention.

RESULTS: Pre-exsiting bone clinic, implementation of frailty clinic. Metabolic bone disease and sarcopenia share pathogenesis, adverse outcomes and non-pharmacological interventions of primary and secondary prevention. Nurse role: DEXA densitometry, comprehensive geriatric assessment andrisk factors assessment targeting bone and muscle fragility, healtheducation.

CONCLUSIONS: The entire spectrum of aging from primary to tertiaryprevention is addressed in bone and frailty clinic. The nurse's role in this context is paramount.

IMPROVING DRUG PRESCRIPTION APPROPRIATENESS IN LONG TERM CARE SETTING-GALLIERA NURSING HOME THROUGH COMPUTERIZED INTERDISCIPLINARY SMART MULTICOMPONENT SYSTEM

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INTRODUCTION: Elderly are at high risk of receiving Potentially Inappropriate drug Prescriptions (PPI) with an increased risk of developing Adverse Drug Reactions (ADR).

AIM: To evaluate if a specific computer-based tool is useful to improve appropriateness prescription in a long term care setting.

METHODS: A group of 38 elderly subjects aged ? 65 years (mean age: 81.8±7.4 years, 76.9% women, 22 Alzheimer Unit, 17 post-acute patients) admitted to RSA Galliera, Genova (Italy), was analysed. On admission, all patients underwent a Comprehensive Geriatric Assessment (CGA) to evaluate functional, cognitive, nutritional, mobility, comorbidity, polypharmacy and co-habitation status in order to calculate the MPI (Multidimensional Prognostic index), a validated tool predictive of negative health outcomes in community dwelling older adults. All pharmaceutical prescriptions were screened by means of a specific software able to integrate every clinical data with prescription appropriateness STOPP criteria (screening Tool of older Persons' Prescription) and major drug interactions from Micromedex Drugdex database. In order to evaluate any potential improvement in terms of appropriateness, in all patients the Medication Appropriateness Index (MAI) has been calculated on admission and at discharge.

RESULTS: PPI were present in 82% of patients: in 50% was detected respectively at least one STOPP criteria and at least one major drug interaction. Number of drugs was <5 in 7 patients, between 5-10 in 28 patients and >10 in 3 patients. MAI significantly correlated (p=0.002) with the number of drugs administered. Two patients had MPI1, 11 patients had MPI 2, and 25 patients had MPI3. MAI correlated to MPI (p=0.047). From admission to discharge the total number of PPI decreased significantly (MAI at discharge proved 1.3 points lower than MAI on admission, 95% IC=-2.0; -0.5).

CONCLUSIONS: The Interdisciplinary Smart Multicomponent system significantly improves the prescription suitability for drugs in long term setting. The improvement is greater in the most compromised individuals as assessed by MPI (MPI-3). This system may be a useful tool for clinicians in order to improve the prescription appropriateness in the elderly.

ELDERLY WITH HIP FRACTURE: DATA FROM GERIATRIC UNIT "INFERMI" RIMINI'S HOSPITAL

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INTRODUCTION: E with HF are a burden for health service and they represent the paradigm of frailty for whom comprehensive geriatric assessment (CGA) is the ideal approach[1]. From 2013 to 2017 in Rimini's "Infermi" hospital an orthogeriatric pathway (OP) based on CGA has been applied to E inpatients with HF by a multiprofessional team from Emergency Department access to discharge. The outcomes are: to evaluate if treatment of HF is online with raccomandations and to estimate if mortality rate is under national average (2.5%).

MATERIALS AND METHODS: In this analysis 879 E with HF were submitted to OP in orthopedic ward by a multiprofessional team composed by geriatrician, internist, orthopaedist, anesthesist and geriatric nurse. OP is based on access on orthopaedic room within 48 hours, perioperative CGA (ADL, IADL, Cumulative Index Rating Scale-CIRS and Comorbidity

Complex Index-ICC) and daily assessment to encourage mobility, to reduce complications/mortality and to help fast discharge[2].

RESULTS: Median length of stay 12.8 days, middle age 85, median ADL-CIRS-ICC, respectively, 85.2-3.2-33.7-6.6. Surgery within 48h 73.6% while conservative therapy 2%. Mortality rate is 0.9%.

DISCUSSION: In our analysis E with HF are very old with disability and comorbidity. Surgery within 48hs is applied in an high percentage of E. Complications are under control by multiprofessional team and reciving CGA while hospitalized is associated with a low risk of mortality.

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AN UNUSUAL CASE OF SALMONELLOSIS

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An 84-years-old white female presented to our department with severe back and right upper abdominal pain, weight loss, anorexia and without fever. Functional and mental status were good. General physical examination revealed severe paravertebral spasm and decrease of lumbar and thoracic spine movements. Wasserman's test were positive bilaterally, Lasegue's test were negative. In the first days after admission she had a low grade fever with night sweats. Laboratory evaluation showed an inflammatory state (total leucocyte count of 13800/mm3, neutrophils 93.6%), C reactive protein of 251 mg/L and acute kidney failure (creatinine 3.54 mg/dL). Liver function tests were noted to be deranged (total bilirubin 2,53 mg/dL, Alk Phos 131 U/L). Hepatitis B, C, A, Campylobacter, Shigella and HIV serology were all negative. Ultrasound of the abdomen highlighted stones in the gallbladder, for which there was no surgical indication. A colangioRMN demonstrated, as collateral finding, osteomyelitis of the T12 and L1 vertebral bodies with relative sparing of the intervertebral disc and an abscess into the left ilio-psoas muscle. Echocardiography revealed a vegetation on the aortic valve. Blood cultures grew Salmonella group C totisensibilis. The same pathogen was also found in cultures from the abscess and in the stool. The patient was treated with ceftriaxone plus co-trimoxazole. Fever and inflammatory markers disappeared after 8 days and the general condition gradually improved, so the patient was transferred to a rehabilitation department. Here after 8 weeks, signs of right knee arthritis developed. Blood and sinovial fluid cultures grew Salmonella paratyphi. The patient developed septic shock and died after 100 days of hospitalization.The case presented here is one of the few cases of Salmonella sepsis occurring in a patient without predisposing factors.

UPDATE ON OUR EXPERIENCE: SHORT GERIATRIC OBSERVATION IN TRIESTE

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INTRODUCTION AND OBJECTIVES: Since October 2015 Short Geriatric Observation (OBG) has been activated at the Geriatric Department of the Ospedale Maggiore of Trieste.In fact, traditional hospitalization in the elderly is often accompanied by side effects that negatively affect their functional status; therefore, it is important for the hospitalization period to be as short as possible.

METHODS: Patients over 75 years of age at risk of frailty, with medium to low severity acuities and possible rapid discharge were admitted to OBG from Monday to Friday in the daytime. In this setting is possible to carry out urgent blood chemistry analyses and instrumental tests. If the social situation is unstable, the patient is referred to the local services for a prompt takeover. If the discharge cannot be made within 48 hours the patient is hospitalised in the Geriatric Department.

RESULTS: Two hundred and thirty-two patients (mean age of 85.4 years) were hospitalised from October 2015 to December 2017. Of these 125 were referred by the Emergency Room (54%) and 107 by local facilities/general practitioners (46%).One hundred patients (73%) were discharged within 48 hours at their home (158), at a nursing home (25), or at medium term rehabilitation facility (40). The 30-day rehospitalization rate was 18,6% and mortality 5,6%.

CONCLUSIONS: In the first two year of activity collected data confirmed the possibility to effectively treat a large number of elderly people with this assistance model, which in most cases allows a discharge into the appropriate facilities within the time limits. In the last year there was a small increase in mortality and 30-day hospitalization rates, probably due to a worse clinical condition of patients as expressed by multidimensional evaluation: SPMSQ (3,36 *vs* 3,44), ADL (4,11 *vs* 3,97) and IADL (3,8 *vs* 3,4).

CLINICAL FRAILTY SCALE AS PREDICTOR OF IN HOSPITAL MORTALITY IN A GERIATRIC WARD

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A Multidishiplinary, comprehensive approach to geriatric assessment in elderly acute inpatients is the cornerstone of the geriatric medicine. We studied a population of 780 inpatients consecutive recovered in the Geriatric Ward in Ospedale Israelitico of Rome. All patients underwent a comprehensive geriatric assessment at hospital admission including Clinical Frailty Scale, Short Portable Mental Status Questionnaire, Activity of Daily Living, Instrumental Activity of Daily Living, Tinetti scale. Analyzing the results we found 65% of patients over 80 years old with more than 15% over 90. 73% of patients at admission were unable to perform almost one of the ADL and more than 1/4 were completely dependent on ADL. More than 60% were frail and more than 45% were severely frail according with Clinical Frailty Scale. Mortality was strictly related to Frailty at the admission while only a weak relation was found with length of stay.

NOVEL ORAL ANTICOAGULANTS AND ELDERLY PEOPLE: A CASE REPORT

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BACKGROUND: Atrial fibrillation (AF) is the most common cardiac arrhythmia in elderly subjects, increasing progressively with age. Although it has been shown that in patients with FA the net clinical benefit obtained with oral anticoagulant therapy increases with age, many studies have shown that TAO is poorly prescribed in these patients.

AIM: However, geriatric patients often appear outside the therapeutic range in TAO. The NOACs, also in relation to the known limits of use of the TAO, are placed in this scenario.

METHODS: A case of 101-year-old patient admitted to the Geriatrics Ward, Israelitic Hospital; in relation to the detection of not-datable atrial fibrillation, home therapy with enoxaparin subcutaneous and anti-arrhythmic therapy with amiodarone was undertaken, and confirmed at the admission. Geriatric multidimensional evaluation was performed at the entrance from which emerged a condition of partial self-sufficiency; CHAD-VASC / HAS-BLED has been performed which has respectively shown a score of 5 *vs* 1. The echocardiogram has excluded significant valvular disorders. Finally it was considered appropriate to undertake oral anticoagulant therapy with apixaban at the dosage of 2.5 mg, twice a day as aged over 80 and weighing less than 60 kg.

RESULTS: Despite the advanced age of the patient, since there are no contraindications to oral anticoagulation, it was considered appropriate to undertake treatment with NAO in relation to the increased thrombotic risk, with lower hemorrhagic risk.

CONCLUSIONS: NOACs represent an important therapeutic choice, especially in the elderly, both in consideration of the limits of the TAO and the greater simplicity of use of this drugs. Anyway, it's important to control, through scheduled geriatric checks, as the patient as renal function and any complications.

INTEGRATED DOMESTIC REHABILITATION PROJECT OF THE FRAIL ELDERLY

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BACKGROUND: The progressive aging and the presence of a population defined as "frail elderly" means that it is important to maintain the motor skills of these subjects also in order to prevent accidents, falls and related possible disability.

AIM: We are directed towards interventions that envisage an assessment of the fall, in order to assess the environmental, functional and organic causes, and the physical and psychological consequences, in order to define a global rehabilitation project.

METHODS: We predisposes, carries out and authorizes home rehabilitation treatments; The CAD operators go to the person's home to make a survey of the assistance needs using tools (*e.g.* Barthel, MMSE, etc.), if necessary can request the intervention of specialists (physiatrist, orthopedist, neurologist, geriatrician). The operative protocol consists of: 1) Selection of the target population (frail elderly); 2) Information about the general practitioner; 3) Appointment for the joint inspection; 4) Home visit that aims at the cognitive, educational and promotion of interventions; 5) Follow Up.

RESULTS: In the case in which the person has a need of assistance of medium or high complexity (nursing and rehabilitation) the rehabilitation is brought back within the PAI provided in ADI; in case it is considered instead to direct the request towards rehabilitation pursuant to art. 26 during the UVM the appropriate adequacy assessments are made to be authorized.

CONCLUSIONS: In our experience multifactorial interventions, with individualized exercise programs, associated with interventions prescribed at home by specially trained health personnel, which combine the evaluation of the factors of risk and the consequent environmental modifications, provide a possible and correct answer to the functional motor and psycho-affective difficulties of these patients. On the basis of an analysis of the data currently collected we report an improvement in the functional motor indexes, a reduction in requests for medical intervention, and a positive "trend" of the psycho-affective state.

FRAILTY AND MEDICAL LEGAL CERTIFICATE FOR CIVIL DISABILITY: MULTIPLE PROGNOSTIC INDEX AS A MODEL TO IDENTIFY THE FRAIL ELDERLY TO BE SUBMITTED TO CIVIL INVALIDITY

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BACKGROUND: Among older persons, the prevalence of frailty is estimated to be 10%-60%, depending on the frailty assessment instrument used and the population studied. The MPI (multidimensional prognostic index) as comprehensive geriatric assessment (CGA) captures multisystem deficits, from which a frailty levels can be derived.

AIM: The aim of the study was to investigate the effectiveness of the MPI as a model to identify and screen the frail elderly with a cognition and/or physical disability to be submitted to civil invalidity. To evaluate the efficacy of MPI in patients over 65 years old in predicting the release of the accompaniament allowance (AA) indemnity by a Local Medico-Legal Committee (MLC-NHS) and by the National Institute of Social Security Committee (MLC-INPS).

METHODS: In this pilot study was carried-out in 60 older patients (mean age 86±5.38; females) , evalueted from our center, requesting Medical Legal Certificate for Civil Disability . The subjects were evalueted by the comprehensive geriatric assessment (CGA) based on the multidimensional prognostic index (MPI)-include age, medical comorbidities, psychosocial problems, previous or predicted high healthcare utilization, change in living situation, and specific geriatric conditions.

RESULTS: The score of the outcomes at conclusions: presented a positive trend: growing the MPI index is associated to an increased probability to obtain a 100% civil disability and indemnity release . Pilot data showed it is possibile to identify a cut-off score -corresponding at MPI index of 0,88 – predicting the indemnity release.

CONCLUSIONS: Even if this result needs to be confirmed in future studies with rich data, MPI could improve the accuracy of the impairment assessment in social security system.

ALTERATIONS OF SLEEP ARCHITECTURE AND CONTINUITY IN THE OLDER ELDERLY AND THEIR RELATIONS WITH COGNITIVE DISEASE

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OBJECTIVES: To check the changes in sleep architecture and continuity and their relations with cognitive status in a selected group of older elderly patients.

MATERIALS AND METHODS: Eighteen subjects aged over eighty-five without reported cognitive disorders and no primary sleep disturbances underwent to study of sleep obtained from a portable, multichannel forehead electroencephalography recorder. Morning after sleep study, all patients were given Pittsburgh Sleep Quality Index, Babcock story, Rey's 15 words test, Digit Span Forwards, Ideomotor apraxia test, Phonemic and Semantic fluency test, Copying drawings, Attentional matrices, Trail Making Test, Clock Drawing Test.

RESULTS: Subjects do not have a proper perception of quality of their sleep. All patients have poor sleep quality and phase N3 lasts only few minutes. Rey's 15-word test correlates positively with sleep efficiency and NREM+REM duration, negatively with wake after sleep onset (WASO) and total waking.Digit Span

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Forwards can give us an estimate of duration of the various stages of sleep and in particular correlates positively with duration of phase N2 and negatively with duration of phase N1 and REM.Increases in N1 corresponds to better performance to prose memory and worse to constructive apraxis.Increase in N2 correlates with Phonemic and Semantic fluency.Increase in wake after sleep onset expresses worse results in Attentional matrices and Clock Drawing Test.Latency of REM is related to better prose memory.

CONCLUSIONS: To cause cognitive problems is not a specific sleep parameter, but the fragmentation of sleep itself.

INFECTION DISEASES IN POST ACUTE LONG TERM CARE: CONTROL AND COSTS OF ANTIBIOTICS THERAPY

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BACKGROUND: Infectious disease represent an important problem in post acute long term department, especially in the older patients.

AIM: The aim of this study was analyze of infectious diseases in post acute long term department. Analysis to the principal typologies of infections and the costs of the main antibiotic therapy.

METHODS: We analyse dates on 2017 referring to the principals typologies of infections, based on age, sex, death rate and costs of the main antibiotics therapy. The database of regional health farmacology department, dimittions documents and DRG were used to obtain dates.

RESULTS: Most of patients evalueted were male, and they were 75 Years (±3 years). 50% of patologies esamined were pneumonie and BPCO; Sepsi and urine tracks infections represeant the others importants causes of hospitalization in long term care department. In older patients, infections diseases represent an important cause of death, specially for pneumonia (62%) and sepsi (24%). Direct costs for the main antibiotics therapy are 20% of economic revenues referring to the DRG of all patologies. 5.

CONCLUSIONS: Infectious diseases represent a principals causes of death in older patients, increasing direct costs for antibiotics therapy and hospitalization in long term care department.

ROBOTIC EVALUATION WITH HUNOVA IN OLDER PEOPLE: CORRELATION WITH SHORT PHYSICAL PERFORMANCE BATTERY

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BACKGROUND: Hunova is a new robotic device developed and validated to perform functional evaluation and sensorimotor rehabilitation of lower limbs and trunk in static and dynamic environments. AimTo evaluate correlation between balance parameters in different condition and SPPB in older community-dwelling people.

METHODS: 100 subjects aged ≥65 years (mean age 77.17±6.49 SD years) were enrolled. According to the SPPB score participants were classificated as normal (30, SPPB between 10 and 12), intermediate functional impairment (29, SPPB 8 or 9), severe functional impairment (37, SPPB <8). Balance was evaluated by Hunova in static, dynamic and perturbating conditions, in both standing/seated positions and with open (OE)/closed eyes (CE). Parameters were: sway area (SA, cm2 in static condition, angular displacement area-deg2- in dynamic conditions), path length (PL) (cm in static conditions and angular degree in dynamic conditions, Center of Pressure/platform oscillations), range of oscillations in anterior-posterior (OAP, cm in static conditions and angular degree in dynamic conditions) and medio-lateral directions (OML, cm in static conditions and angular degree in dynamic conditions) (platform and trunk oscillations). Statistical analysis was carried-out by means of Kruskal Wallis test and Spearman correlation test.

RESULTS: The three different SPPB classes showed significant differences in postural control parameters in standing static (SA: normal=2.11, intermediate=3.24, severe impairment=4.36, p=0.03; OAP: normal=1.7, intermediate=2.39, severe=2.64, p=0.04; OML: normal=1.39, intermediate=1.70, severe impairment=2.24, p=0.03, PA: normal=19.88, intermediate=22.77, severe impairment=27.77, p=0.01, CE condition) and standing dynamic conditions (SA: normal=11.98, intermediate=23.49, severe impairment=28.50, p=0.01; OAP: normal=3.64, intermediate=4.13, severe impairment=4.24, p=0.04; OML: normal=3.64, intermediate=4.88, severe impairment=6.66, p=0.006; PL: normal=25.65, intermediate=33.00, severe impairment=34.35, p=0.004, OE conditions). Trunk control was more impaired in subjects with more severe functional impairment: standing dynamic OE condition OAP: normal=3.95, intermediate=5.69, severe impairment=6.6, p<0.001, OML: normal=4.46, intermediate=5.28, severe impairment=7.6, p<0.001; standing perturbating condition OE condition OAP: normal=6.35, intermediate=6.8, severe impairment=9.17, p=0.01; OML: normal=5.36, intermediate=5.63, severe impairment=7.65, p<0.001, and seated perturbating condition (OAP: normal=6.17, intermediate=8.38, severe impairment=8.20, p=0.01 OE; OAP: normal=5.89, intermediate=6.74, severe impairment=8.89, p<0.001; OML: normal=7.77, intermediate=8.29, severe impairment=9.21,p=0.01, CE).

CONCLUSIONS: Balance parameters assessed in static, dynamic and perturbating conditions by the robot hunova showed a significant strong correlation with SPPB score in older community-dwelling people.

PALLIATIVE CARE IN A GERIATRIC DAY HOSPITAL SETTING: AN IMPORTANT RESOURCE FOR SIMULTANEOUS CARE

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BACKGROUND: Palliative care started in 2009 in Galliera Hospital. The following year , in compliance with law 38/2010, a D.H. activity for palliative care was organized inside the CUROGE Department in addition to home care, outpatient care and consulting activity.

AIM: Primary endpoint is to provide oncological and chronic pain patients with different tools compared to home care and outpatient settings: 1) to stabilize pain therapy; 2) to describe and evaluate BTcP ; 3) to treat refractory pain and to carry out infiltrative treatments; 4) to administrate parenteral support therapies. Secondary endpoint is to evaluate in advance the patients with a simultaneous approach in cooperation with oncologists, geriatrics and internal medicine specialists.

PATIENTS AND METHODS: The study referring to 2016-2017 years, shows data concerning patients who have been recruited for oncological and chronic pain, nutrition problems and Fatigue Syndrome. We are using an electronic case sheet with forms and questionnaires, to monitor: 1) pain therapy (N.R.S.; verbal scale); 2) symptoms and functional status (E.S.A.S.; E.C.O.G.), 3) nutritional

status (M.N.A.).We are implementing a multi prognostic index (M.P.I.) for frail elders.

RESULTS: In 2016 were evaluated 19 patients, whose 15 oncological (most representative cancer site was: 9 gastro-enteric); the origin: 10 Oncology, 8 outpatient palliative care, 1 home palliative care . The main services provided were : 15 nutritional support; 5 psychological support, 4 loco-regional infiltrative treatments.In 2017 were evaluated 17 patients, whose 13 oncological (most representative cancer site was: 6 genito-urinary); the origin : 7 oncology, 7 outpatient palliative care, 3 home palliative care. The main services provided were:8 nutritional support, 3 loco-regional infiltrative treatment.

CONCLUSIONS: The palliative care D.H. is a model of the application of simultaneous care for hospital- territory able to give services difficult to provide at home and favourable to early and protected discharge from hospital.

PSYCOLOGICAL COUNSELLING IN DEPRESSIVE SYMPTOMS AFTER DELIRIUM IN ELDERLY PATIENTS

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BACKGROUND: Patients hospitalized with delirium after discharge can show a higher prevalence of depressive symptoms three times higher than the patients without delirium.

AIM: The aim of the study was to investigate the effectiveness of a group-based psycological counselling interventions to reduce the prevalence of psychiatric symptoms, namely depressive; we compare 15 patients (group A counselling) and group B (control receiving only informations brochure) after delirium in elderly patients, discharged from hospital and the relative's stress.

METHODS: In this pilot study was carried-out in 30 older patients (mean age 86,03±5,21 years) and their relatives, discharged from our Geriatric Unit, who experimented a delirium with allucinations and delusions and received phisical restraints . Inclusion criteria: a GDS score >6 at baseline, age between 65 and 90 years; absence of past psychiatric pathologies, sensorial deficits and overt dementia .The presence of delirium at admission and during hospitalization was evalueted by 4At, mRSSA. The counselling programme includes: 60 minutes meetings, once a week, over six week from discharge. At baseline, at conclusions: of intervention is measured: cognitive status via a clinical conversation and administration of neuropsychological screening tests ; depression by GDS , anxiety symptoms with STAI and persistence of delusion with MMPI 2 (Minnesota Multifasic Personality Inventory -2).

RESULTS: The score of the outcomes at conclusions: of intervention presented a statistically significant improvement with respect to base values only in the group A counselling treated.

CONCLUSIONS: The results of this pilot study show that treating a group using a psycological counselling can be an efficient intervention for reducing depressive symptoms post delirium in patients and meets important needs of the carer. This result needs to be confirmed in future studies through qualitative studies with rich data.

ENTERAL TUBE FEEDING AND MORTALITY: USEFULNESS OF MULTIDIMENSIONAL PROGNOSTIC INDEX TO FACILITATE CLINICAL DECISION MAKING IN HOSPITALIZED OLDER PEOPLE. A MULTICENTRE, INTERNATIONAL, LONGITUDINAL STUDY

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BACKGROUND: Enteral tube feeding for older patients with a poor nutritional intake is common. However, there is insufficient evidence to suggest that enteral tube feeding is beneficial for more frail patients. The Multidimensional Prognostic Index (MPI) has a good power to predict mortality, but its application for improving the decision to place enteral tube feeding is not known. We aimed to investigate if MPI can help in identifying patients for which enteral tube feeding is more appropriate.

METHODS: Older patients, admitted to hospital, were followed-up for one year. Data regarding enteral tube feeding were recorded through medical records. A standardized comprehensive geriatric assessment was used to calculate the MPI and the participants were divided in low (1), moderate (2) or severe (3) risk of mortality. Data regarding mortality were recorded through administrative information.

RESULTS: 1,064 patients were included, with 79 (13 in MPI2 category and 66 in MPI3) having an enteral tube feeding. In the multivariable analysis, the patients with an enteral tube feeding experienced a higher risk of death (odds ratio, OR=2.00; 95% confidence intervals, CI: 1.19-3.38). However, after stratifying for their MPI at admission, only people in MPI3 reported an increased risk of mortality (OR=2.03; 95%CI: 1.09-3.76), whilst people in the MPI2 category had not (OR=1.51; 95%CI: 0.44-5.25).

CONCLUSIONS AND RELEVANCE: Enteral tube feeding is associated with a higher risk of death. However, these data are limited to only more frail patients, suggesting the importance of the multidimensional geriatric assessment in the evaluation of enteral tube feeding placement.

THE EUROPEAN STUDY OF OLDER SUBJECTS WITH ATRIAL FIBRILLATION STUDY: PRELIMINARY DATA ON ANTICOAGULANT PRESCRIPTION IN FRAIL OLDER PATIENTS

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BACKGROUND: Previous studies suggested that a different risk of mortality may influence the attitude of physicians in prescribing oral anticoagulants in older patients affected by atrial fibrillation (AF). The Multidimensional Prognostic Index (MPI) demonstrated a high grade of accuracy, calibration and feasibility

for predicting mortality in elderly people. However, prognostic information calculated by the MPI is not yet included in the decision algorithm of treatments in older patients affected by AF.

AIM: The aim of this study was to evaluate whether a different attitude in prescribing oral anticoagulants exist, taking in consideration the different risk of mortality indicated by MPI.

METHODS: Older hospitalized patients (age ? 65 years) with non-valvular AF were included. At baseline, functional and clinical information will be collected to calculate several prognostic indexes, such as the MPI, CHA2DS2-VASc score, HAS-BLED score.

RESULTS: We included 554 older patients affected by AF. Their mean age was 82.3±7.6 (range: 65-102) years, with a higher presence of women (=56.9%). Their mean HAS-BLED score was 2.7±1.1 points and the CHA2DS2-VASc score was 4.9±1.4, indicating patients at both higher risk of major bleedings and thromboembolic events. The mean MPI score was 0.5±0.2 points, with 148 (=26.7%) at low risk (MPI-1), 183 (=33.0%) at intermediate risk (MPI-2) and 142 (25.6%) at high risk of mortality (MPI-3). At their admission, 157 people took vitamin K antagonists (VKAs) (28.3%) and 166 new oral anticoagulants (30.0%). VKAs were prescribed more frequently in people in MPI-1 compared to those in MPI-3 (35.8 *vs* 23.4%, p=0.02), whilst no significant differences emerged for new oral anticoagulants (p=0.78).

CONCLUSIONS: In these preliminary data from the EUROSAF study, physicians prescribed less frequently VKA in frail patients, whilst no significant differences emerged for new oral anticoagulants.

COMPARISON OF CURRENTLY ACCEPTED ELECTROCARDIOGRAPHIC CRITERIA FOR THE DIAGNOSIS OF LEFT VENTRICULAR HYPERTROPHY WITH A NEW CRITERION

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BACKGROUND: ECG criteria for the diagnosis of left ventricular hypertrophy (LVH) have shown heterogeneity in terms of sensitivity and specificity. This study tested the sensitivity and specificity of current major LVH criteria, compared with the Peguero-LoPresti index and analysed different R-S waves combinations in order to improve the predictiveness in LVH with a new criterion.

METHODS AND RESULTS: All consecutive patients underwent to ECG and Echocardiography were collected from January 2012 to May 2016. The authors chose for comparison the Sokolow-Lyon, the Cornel and the Peguero and LoPresti index. Given the echo diagnosis of LVH (accomplished with Devereux formula), the three ECG criteria were compared and the sensitivity and specificity was calculated for each. 2176 patients (68±12 years, 47% male) were recruited and analysed. Between different R and S waves combinations, the best criterion was the multiplication of the amplitude of the deepest S wave in any lead and the R wave in aVL, LVH was defined as ?119 mm2 in female and ?129 mm2 in males. This LVH criteria was compared with the Sokolow-Lyon, the Cornell and the Peguero-Lopresti index. The new criterion was the most accurate in the comparison (AUC: 0,70) with the best sensitivity, 44% (95% CI: 42%-46%), if compared with Peguero-LoPresti, Cornell and Sokolow-Lyon (41% 32% and 25% respectively). The proposed criterion has a specificity over 80%.

CONCLUSIONS: A new ECG criteria for LVH could improve the sensitivity and preserves a good specificity if compared with other LVH criteria.

COGNITIVE IMPAIRMENT IN A PATIENT WITH PROBABLE CEREBRAL AMYLOID ANGIOPATHY

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Cerebral amyloid angiopathy (CAA) is characterized by ?-amyloid deposits accumulating between the media and adventitia of the small-to-medium-sized blood vessels of the leptomeninges and cerebral cortex. Amyloid deposits can disrupt the integrity of the vessel walls, potentially causing perivascular hemorrhages and ischemia. The definitive diagnosis remains autoptic. CAA should be suspected in patients with multiple lobar hemorrhages in the absence of other identifiable causes. Neuroimaging detection of micro-hemorrhages and cortical superficial siderosis are required to confirm the clinical diagnosis. An 83yo man (former smoker, no other cardio-vascular risk factor) was referred to our outpatient clinic because of a prospective memory complain. The symptoms had insidiously become evident since two years before after general anesthesia for a cholecystectomy intervention. The neuropsychological testing showed a non-amnestic mild cognitive impairment with deficit of executive, psychomotor, and ideational functions. Three weeks later, the patient was admitted to our acute care unit for an episode of confusion followed by two consecutive, brief, and generalized tonic-clonic seizures. Physical examination, vital signs and blood investigations at the admission were normal. Neurological assessment revealed ideomotor slowness, disorientation, short-term memory impairment, anomia, and right hemineglect. Brain CT scan showed hemorrhagic lesions in left occipital area, right parietal and occipital subarachnoid hemorrhages, diffuse cortical atrophy, and chronic microvascular ischemic changes. Artero-venous malformations were excluded by CT-angiography. Brain MRI confirmed multiple cerebral hemorrhages and signs of probable CAA. The patient's clinical and neuropsychological profile improved during the hospital stay, returned to the pre-hospitalization level and his stability was confirmed at the 4-month follow-up visit.

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