Multidisciplinary approach to prostatitis

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Table 1.
Demography and microbiological status.

	Group A	Group B	Sig
Demography			
N°	253	137	< 0.05
Mean age (yrs)	41.8	45.6	< 0.05
Microbiological presentation			
		42 MSU	
Samples	44 EPS/sperm	50 EPS/sperm	
Mono-microbial infection	204	93	
More than 1 pathogen	49	43	
History more than relapses	-	24	
Microbiological Outcome			
Persistence rate	25	28	< 0.05

MUC = midstream specimen of urine culture; EPS = culture of the expressed prostatic secretion; PPM = post-prostate massage.

No conflict of interest declared.

Table 2.
Prevalence of uropathogens in Group A and B.

Group A		**Group B**	
E.coli	90 (36.14%)	E.coli	52 (41.26%)
CoNS (hominis & haemolyticus)	71 (28.51%)	CoNS (hominis & haemolyticus)	38 (30.15%)
Enterococcus	70 (28.11%)	Enterococcus	31 (24.6%)
Streptococci (milleri, agalactiae, parasang)	21 (8.4%)	Streptococci (agalactiae, mitis)	10 (7.9%)
Proteus	20 (8.03%)	Proteus	8 (6.3%)

Table 3.
Monomicrobial and polymicrobial isolates and rate of fully sensitive isolates.

Strain	**Group A**				**Group B**			
	Mnomicrobial	% fully sensitive	Polimicrobial	% fully sensitive	Monomicrobial	% fully sensitive	Polimicrobial	% fully sensitive
Enterococcus	45 (10 EPS, 35 PPM)	13 (28.9%)	25 (6 EPS, 19 PPM)	8 (32%)	21 (9 MUC, 9 EPS, 3 PPM)	8 (38%)	11 (4 MUC, 5 EPS, 2 PPM)	6 (54.6%)
Note:: Susceptibility to most antibiotics increased, but increasing resistance to fluoroquinolones during relapses was noted.								
E.coli	69 (8 EPS and 61 PPM)	59 (85.5%)	21(5 EPS and 16 PPM)	12 (57.1%)	35 (7 EPS, 7 PPM and 21 MUC)	27 (77.15)	17 (8 EPS, 6 PPM and 3 MUC)	10 (58.8%)
Note: The overall sensitivity to most antibiotics for groups A and B was comparable however an increasing resistance to aminoglycosides during relapses was clearly shown.								
CoNS	46 (9 EPS and 37 PPM)	24 (52.2%)	25(6 EPS and 19 PPM)	11 (44%)	18 (7 EPS, 6 PPM and 5 MUC)	11 (61.1%)	19 (9 EPS, 6 PPM and 4MUC)	14 (73.6%)
Note: The overall full sensitivity was greater in group B (relapses) than in group A (first time CBP presenters).								
Other								
Note: The limited number of the remaining isolates does not allow for valuable comparisons.								
MUC = midstream specimen of urine culture; EPS = culture of the expressed prostatic secretion; PPM = post-prostate massage.								

Table 4.
Sperm cultures and urethral cultures.

Sperm cultures			
Group A		**Group B**	
Monomicrobial	Polymicrobial	Monomicrobial	Polymicrobial
14	4	16	4
In both groups the most frequent isolate was Enterococcus faecalis (13 and 8 respectively). A remarkably higher Enterococcus faecalis isolate resistance was noticed in group B (69% vs 25%).			
Urethral cells/discharge cultures			
21		27	
Staphylococcus CoN and Clamydiae trachomatis were the most common pathogens in both groups. Generally, a relatively increased resistance to quinolones was observed and a sufficient degree of susceptibility to the least used antibiotics (TMP-SMX, tetracyclines, aminoglycosides, penicillins, and macrolides) (table 3). In some cases cross resistance between ciprofloxacin and newest quinolones was not observed.			

Table 5.
Monomicrobial and polymicrobial isolates and rate of fully sensitive isolates.

	Macrolides	Tetracyclines	Amino glycosides	Penicillins	Cephalosporins	Quinolones	TMP-SMX
Enterococcus	↓↓	↑	↓↓↓	↑↑↑	NA	(unless NA) ↑↑↑	NA
E. coli	-	↓↓↓	↑↑↑	↓↓↓	-	↑	↓↓
Proteus	-	NA	-	-	↓	↑	↓↓
Streptococci	↑↑	↑↑	-	-	-	-	-
Staphylococci	↓	↑	↑	↑	-	↓	↓↓

↑ slight increase (up to 20%), ↓ slight decrease (up to 20%),
↑↑/↓↓ increase up to 50% / decrease up to 50%,
↑↑↑/↓↓↓ increase greater than 50% / decrease greater than 50%,

Table 6.
Case report.

–	age 27
–	suffering from chronic bacterial prostatitis not responsive to repeated cycles of antibiotics, from the age of 23 years.
–	previous positivity for Enterococcus spp, Enterococcus faecalis, E. coli, Chlamydia tracomatis, Gardnerella v. At the following check (after T.M. for Gardnerella v.)
–	NIH-CPSI questionnaire scores: pain symptom = 11 (mild symptomatology); micturition = 2; QOL= 8; total score = 21
–	score 4 in the VAS scale for the classification of pain intensity
–	IPPS questionnaire: 7 (mild symptoms)
–	no sexual dysfunction (IIEF-PEDT) VAS: 4 IPS: 7 IEF: (1/5: 15) = 30
–	Stamey + semen microbiological test that highlighted the presence of Gardnerella in the seminal fluid.
–	March 2018 medical therapy with metronidazole.
–	July 2018 microbiological follow up negative for Gardnerella v. , but positive for Staphylococcus caprae and subsequently for Staphylococcus lugdunensis (with unchanged clinical conditions).
–	gastroenterologist consultation
–	stool microbiological profile: lactobacilli deficiency and increase of the bacterial species of phylum Proteobactiria . - - zonulin 431.45 ngr/ml (normal value below 60 ngr/ml).