

Rehabilitative management of pelvic fractures needs to be further optimized

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Abstract

We read with interest the review by Piccione et al. into the rehabilitative management of patients with pelvic fracture (PF). This review adds to our knowledge about the significance and indispensability of early multidisciplinary intervention in PF. From our perspective, however, potential bias might be caused by several unanswered questions. The uncertain methodological process and the unclear definition could misguide the rehabilitation strategies while still in dispute. Therefore, further high-quality studies should be conducted to optimize the multidisciplinary rehabilitation of patients with PF.

Key Words: Pelvic; acetabular; fractures; rehabilitation.

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We read with interest the systematic review conducted by Piccione et al. into the clinical and functional recovery of patients with pelvic fracture (PFs). They summarized their finding into practice advice and recommendations for the rehabilitation of such patients.¹ Eighty articles were included ranging from reports into the epidemiology, current treatment and rehabilitation strategy, associated traumatic injuries and complications of PFs. This review attests to the significance and indispensability of early multidisciplinary intervention in patients with PFs. However, in our view, it also left many questions unanswered, which may cause potential bias. There is uncertainty in the methodological process in terms of study selection for the review. The authors only searched three databases, ignoring the rehabilitation-oriented databases and grey literature. It is, therefore, possible that eligible reports could have been omitted, leading to potential bias. The search strategy and history, which are of great importance in such a review, were missing. The study selection process, therefore, could not be replicated, decreasing the level of evidence. Notably, the study inclusion and grading criteria remained unclear, revealing no consistent standards. It seems that the authors had no prior hypothesis of the type of review they were conducting before the inclusion of publications. As for scoring criteria, the lack of a detailed description of

the specific standards and the exact exclusion criteria could lead to significant methodological problems. In summary, the methodological deficiencies cannot be underestimated. In summary, given all these confounding factors, the level of evidence presented is much decreased. Consequently, potentially recommendations based on such a review could lead to inappropriate rehabilitative management and eventually worsen the long-term outcome of patients with PFs. Therefore it is unwise to give specific recommendations on the rehabilitation management of patients with PFs based on such a review. Furthermore, it is unclear how the various definition throughout used was determined as it is not mentioned in the report. The daily clinical practice could be easily misguided due to misunderstandings without precise definitions. Last but not least, some of the proposals themselves were still in dispute. For instance, early reports have suggested opposite rehabilitation strategies over whether the weight-bearing process should start sooner, while insufficient evidence is given to update them.²⁻⁵ As protocols vary significantly from one study to another, the level of evidence and study quality should be evaluated individually to identify a more standardized guide for PFs rehabilitation. To date, the lack of high-quality meta-analysis of rehabilitation after PFs regarding types of therapy, care pathways, and

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functionality outcomes stills needs to be solved. Further studies and sustained effort are warranted to understand and optimize the multidisciplinary rehabilitation of patients with PFs.

List of acronyms

PFs - Pelvic fractures

Authors contributions

Zehua Li and Dilihumaer Maimaitiming contributed equally to this work. W.X and Z.L were involved in the report conception and obtaining of funding; W.X, Z.L, D.M, and L.S were involved in drafting the manuscript; all authors were involved in the critical revision of the manuscript for important intellectual content. All authors read and approved the final manuscript.

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Conflict of Interest

The authors declare no competing interests.

Ethical Publication Statement

We confirm that we have read the Journal's position on issues involved in ethical publication and affirm that this report is consistent with those guidelines.

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