

## Posterior Acetabular Fractures-Optimizing the Treatment by Enhancing Practical Skills

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**Abstract :** Acetabular fractures represent a real challenge due to their impact upon the long term function of the hip joint, and due to the risk of intra- and peri-operative complications especially that they affect young, active people. That is why treating these fractures require certain skills which must be exercised, regarding the pre-operative planning, as well as the execution of surgery. The authors retrospectively analyse 38 cases with acetabular fractures operated using the posterior approach in our hospital between 01.01.2013- 01.01.2015 for which complete medical records ensure a follow-up of 24 months, in order to establish the main causes of potential errors and to underline the methods for preventing them. This target is included in the Erasmus + project 'Collaborative learning for enhancing practical skills for patient-focused interventions in gait rehabilitation after orthopedic surgery COR-skills'. This paper analyses the pitfalls revealed by these cases, as well as the measures necessary to enhance the practical skills of the surgeons who perform acetabular surgery. Pre-op planning matched the intra and post-operative outcome in 88% of the analyzed points, from 72% at the beginning to 94% in the last case, meaning that experience is very important in treating this injury. The main problems detected for the posterior approach were: nervous complications - 3 cases, 1 of them a complete paralysis of the sciatic nerve, which recovered 6 months after surgery, and in other 2 cases intra-articular position of the screws was demonstrated by post-operative CT scans, so secondary screw removal was necessary in these cases. We analysed this incident, too, due to lack of information about the relationship between the screws and the joint secondary to this approach. Septic complications appeared in 3 cases, 2 superficial and 1 profound (requiring implant removal). The most important problems were the reduction of the fractures and the positioning of the screws so as not to interfere with the the articular space. In posterior acetabular fractures, pre-op complex planning is important in order to achieve maximum treatment efficacy with minimum of risk; an optimal training of the surgeons insisting on the main points of potential mistakes ensure the success of the procedure, as well as a favorable outcome for the patient.

**Keywords :** acetabular fractures, articular congruency, surgical skills, vocational training

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