

CASE STUDY

MRS-TITAN Maximum

Introduction and problem

The average age of patients with acetabular fractures is increasing, with a large share of these patients classified as geriatric. The causes of the increasing incidence of geriatric acetabular fractures include increasing life expectancy and greater activity of older people. Most acetabular fractures in this age group result from low-energy trauma and are associated with osteoporosis. This trend will presumably continue.

Surgical management of acetabular fractures in patients of advanced age confronts surgeons with particular technical and implant-related challenges. Long periods of immobilization should be avoided in patients of this age group. In addition to rapid restoration of hip function and stability in a single-stage procedure ("single shot surgery"), the goal is to achieve early mobilization with full weight bearing. Studies have shown that geriatric patients often cannot tolerate a postoperative regime of partial weight bearing.

AUTHOR

PD Dr. med. Björn-Christian Link

Head of Pelvis and Hip Department
Co-chief of Medical Staff

Lucerne Cantonal Hospital (LUKS)

Department of Orthopaedic and Trauma Surgery
Spitalstrasse
6000 Lucerne 16
Switzerland

<https://www.luks.ch/standorte/standort-luzern/klinik-fuer-orthopaedie-und-unfallchirurgie>

Indication

A 77-year-old woman had suffered a fracture of the right acetabulum as a result of a fall. The injury was initially treated conservatively at another facility. Five weeks after the fracture the patient presented at our facility with severe pain, reduced mobility in the hip, and inability to walk. She also suffered from high blood pressure and recurrent pulmonary embolisms. Prior to the fall, the patient had been able to manage everyday tasks in her home and had been fully mobile without walking aids. In elderly trauma patients, immobilization leads to poor functional outcomes and is associated with a high risk of complications.

A complete fracture of both columns was present. In addition to impaction of the subchondral bone in the region of the superomedial acetabulum, findings included poor bone quality (Fig. 1-3).

The factors described are associated with an increased rate of failure when fractures are treated simply by open reduction and internal fixation.

It was thus decided that surgical placement of a MRS-TITAN Maximum revision cup (Fig. 4) was indicated in order to achieve a stable weight-bearing construct.



Fig. 1 Preoperative situation

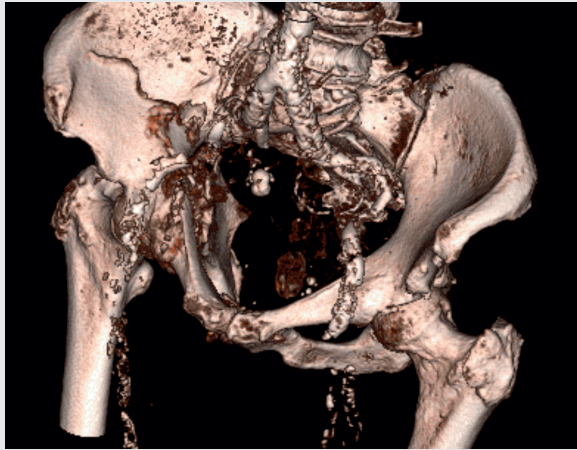


Fig. 2 Preoperative situation

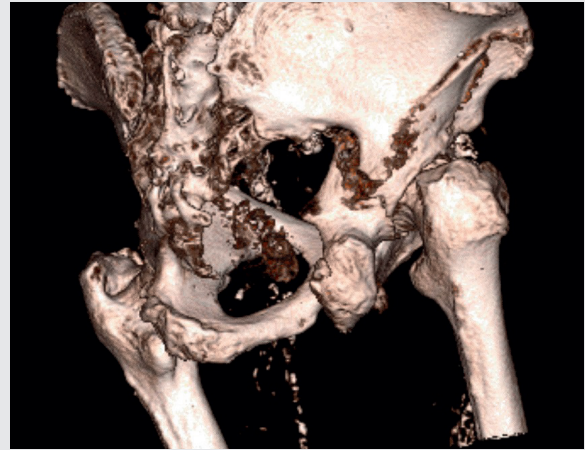


Fig. 3 Preoperative situation

Treatment

The patient was placed in a lateral position and the operation was performed via a posterior approach as modified according to Gibson. The greatest challenge in acetabular fractures is the fixation of the implant in the region of the fractured acetabulum. The implant used was the MRS-TITAN Maximum cementless modular revision cup (52 mm in diameter with a 50 mm iliac peg). No additional internal fixation was required to achieve stable seating of the implant. In light of the good femoral bone quality, a cementless stem was used.



Fig. 4
MRS-TITAN Maximum
with iliac peg

Result

Very good stability was achieved with the MRS-TITAN Maximum revision cup with strap screw fixation and an iliac peg (Fig. 5). No perioperative or implant-related complications occurred. The patient was mobilized with full weight bearing with a wheeled walker immediately postoperatively. As her recovery was free of complications, the patient was released to rehabilitation.

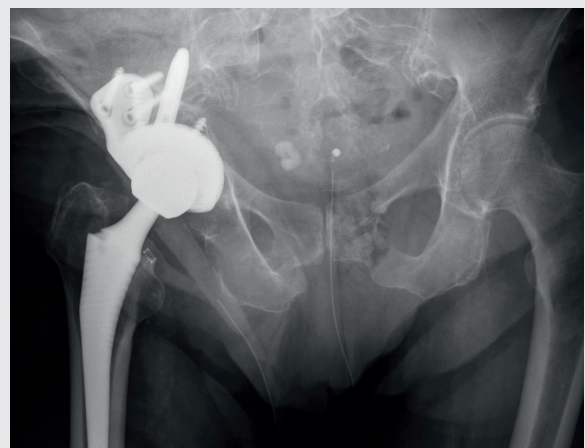


Fig. 5 Postoperative radiograph showing the
MRS-TITAN Maximum revision cup with screw fixation
and iliac peg



PETER BREHM
Die Präzision in Titan
für den Menschen

PETER BREHM GmbH
Am Mühlberg 30
91085 Weisendorf
Germany

Telephone + 49 9135 7103-0
Fax + 49 9135 7103-16
info@peter-brehm.de

www.peter-brehm.de

Join us on



LBL546-50-20250519-EN