25 Oct 2012

INTERCONGRESS

DKOU - German Congress of Orthopedics and Trauma Surgery
Online timetable

DKOU 2012

[back]

Help – Detailed view:
This page presents detailed information about a lecture

WI45-825 Minimally Invasive Stabilization of Weber B Fractures Using Intramedullary Balloon Stabilization (IllumInOss) in Elderly Patients.

Duration	6 minutes
Discussion	3 minutes
Presentation type	Lecture
Abstract number	825
Limited	No

Name	Institute	Location
F. Hoffmann	Paracelsus Clinic	Marl
Dr. T. Gausepohl, MD	Klinikum Vest GmbH	Marl

Abstract

Problem: Especially in elderly patients, taking the weight off the injured bone in fractures of the ankle joint (Weber B) leads to immobility. Often, due to inadequate treatment at home, nursing facilities must be considered at least on a temporary basis. Plaster casts tend to be inappropriate for elderly patients and should be avoided whenever possible.
A new minimally invasive stabilization method offers, at very low surgical cost, high primary stability that allows the injured leg to bear weight painlessly after surgery.

Method: A 5 mm skin incision is made in line with the tip of the fibula. After opening the bone with a broach, a cannulated, curved awl is inserted into the metaphysis under image converter monitoring. After reaching the medullary space, a thin guide wire is pushed forward. A plastic protective sleeve (5 mm in diameter) is inserted with a trocar into the prepared bone canal. After removing the trocar, a PET balloon (available in various lengths and diameters) is introduced and the plastic sleeve is then withdrawn. Under image converter monitoring, the balloon is positioned with the aid of x-ray markings, and then filled with a photosensitive synthetic resin. Curing takes place using blue light, which is applied through an internally positioned optical fiber cable.
Outcomes and conclusions: Between July 2011 and January 2012, the minimally invasive stabilization method was used in seven patients without additional procedures. All the patients (six female, one male) had a Weber B fracture. The mean age was 83.1. The right side was involved in five cases, the left side in two.
The mean surgery duration (incision – suturing time) was 23.85 minutes. This includes the learning curve.
The skin incision's length was 5-10 mm.
No post-op plaster cast immobilization was done in any of the cases.
Physiotherapeutic mobilization started on the first day after surgery. Full weight-bearing was allowed at this point.
All patients were free of pain postoperatively. All wounds without exception healed *per primam*.

In the follow-up examination, postoperative nuclear magnetic resonance tomography was performed in all cases, in order to evaluate the position of the articular yoke during the initial phase of the new technique and to image the position of the balloon and the degree of hardening of the synthetic resin.
Normal positioning of the articular yoke was achieved in all cases. All fractures healed completely.

Conclusions

This innovative, minimally invasive method is preeminently suitable for stabilizing fractures, especially those involving osteoporotic osseous material. The minimal level of soft tissue trauma during surgery and also the short surgery duration are further great advantages in treating elderly patients.