



Short term results of the Spiron cementless femoral neck screw prosthesis



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Introduction

There is an ongoing discussion about the best operative treatment of advanced coxarthrosis with young patients. There exist different types of prostheses. Femoral neck prostheses have the advantage of preserving the femoral neck as well as not opening the diaphyseal marrow cavity. The Spiron prosthesis (K-Implant, Garbsen, Germany, Figure 1) is a conical, self-cutting screw that is inserted without cement into the prepared subcapital implant bearing. Short term results with this type of prosthesis are presented.



Figure 1:
Spiron Prosthesis

Material and methods

From august 2009 to january 2011 14 Spiron prostheses were implanted at the department of trauma and orthopaedic surgery in Minden in 13 patients. The average age of the patients was 51 years at the time of the implantation (35-63 years); 5 male and 8 female patients received the prosthesis. We implanted 8 left-sided and 6 right-sided arthroplasties. 6 patients had primary, 5 secondary coxarthrosis, one patient had a femoral head necrosis and one patient a posttraumatic coxarthrosis.

All prostheses were implanted through a lateral approach. A press fit cup (Allofit – Zimmer) was implanted in all cases.

The mean follow-up was 9 months. Follow up examinations included radiological examinations, clinical function and subjective result.

Results

All patients had good clinical function during short term follow up. There was one revision necessary due to early loosening. The patients were satisfied with the operative result. Radiological examinations showed the development of increasing trabecular reinforcement of the femoral neck and pertrochanteric regions. There was no varus tendency.

Discussion

The Spiron cementless femoral neck prosthesis is based on the idea of proximal force transmission. One of the advantages is the protection of bone substance which might become decisive with regard to a future revision. The implantation of the prosthesis is technically demanding. Short term results are promising.

Case presentation



Male, 46 years, femoral head necrosis both sides. Complaints left side.

Preoperative planing



Lateral approach (Incision about 8-10cm)



Implanting Spiron Prosthesis



Implanting femoral head



Postoperative X-ray

Literature:

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