Abstracts from

Guest Editor

Werner Siebert

preoperatively. 24% would change their treatment strategy in case of a bone mineral density (T-Score) between -1.5 and -2, 40% in case of a T-score between -2 and -2.5, and 29% would change their intraop strategy if a T-score smaller -2.5 was measured. 93% of all asked orthopaedics would change from cementless to cemented implants.
Conclusions: Due to the demographic change orthopaedic surgeons will be faced regularly with osteoporosis while performing arthroplasty, resulting in an increasing need for awareness regarding bone mineral density and osteoporosis.

OP04-135
TERIPARATIDE SEEMS TO IMPROVE RECOVERY AFTER PERTROCHANTERIC HIP FRACTURE: COMPARISON WITH RISEDRONATE IN A RANDOMIZED, CONTROLLED TRIAL
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Introduction/objectives: To compare the effects on fracture recovery of 26 wks' therapy with an oral antiresorptive (risedronate: RIS 35 mg QW) or a bone forming drug (teriparatide: TPTD 20 ug QD) started within 2 wks after osteosynthesis in a pertrochanteric hip fracture in patients with low bone mass.
Methods: 224 patients were randomized to study drug and an oral/injectable placebo plus calcium/vitD3 in an osteoporosis trial. The primary outcome was bone mineral density which will be reported elsewhere. We report secondary (Timed Up-and-Go [TUG] test, hip pain, SF-36, safety) and exploratory (radiography) endpoints. Efficacy analyses of the TUG test, patient-rated health status, and hip pain 100 mm Visual Analog Scale were performed with a Mixed-effects Model for Repeated Measures.
Results: Mean age was 77 years and 77% were female. The teriparatide group completed the TUG test in a shorter time (LS means 5.7, 4.4, 3.1, and 3.1 seconds less at 6, 12, 18, and 24 wks; overall difference p = 0.021) and reported less hip pain during the test (LS means 8.7, 10.6, 11.9, and 10.2 mm differences at 6, 12, 18, and 26 wks; overall difference p = 0.032). No significant between-group differences in SF-36, Charnley hip pain score, ability to walk or walking aids during follow-up. No patient was radiographically healed at 6 wks, and 90% were healed at 12 wks in both groups. Implant failure (TPTD:7, RIS:8), loss of reduction (TPTD:2, RIS:4) or non-union (0 cases) showed no significant differences. Mild hypercalcemia and hyperuricemia were more frequent with teriparatide.
Conclusions: Patients treated with teriparatide reported less hip pain and shorter time to complete the TUG test than RIS between 6-26 wks. These outcomes were secondary.

OP04-87
CEMENTLESS ONE-STAGE BILATERAL TOTAL HIP ARTHROPLASTY IN OSTEOARTHRITIS PATIENTS: FUNCTIONAL OUTCOMES AND COMPLICATIONS
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Introduction/objectives: Total hip arthroplasty (THA) is one of the successful and cost-benefit surgical treatments. One-stage bilateral THA (BTHA) has a large number of advantages. While, there are concerns about the higher complications in this procedure. Aim of our study was to evaluate the complications and outcomes of cementless one-stage BTHA in osteoarthritis patients.
Methods: A total of 147 patients from 2009 till 2013, were underwent one-stage bilateral total hip arthroplasty (BTHA) in Milad and Erfan hospitals, Tehran, Iran. A prospective analysis of the functional outcomes and complications of one-stage BTHA through Hardinge approach in patients with osteoarthritis performed. We evaluated all patients clinically and radiologically with serial follow-ups. A clinical hip score based upon the modified Harris Hip Score (MHHS) was performed preoperatively and again postoperatively.
Results: During period of study 89 men (60.5%) and 58 women (39.4%) with a mean age of 54.67 ± 7.08 years at the time of presentation were recruited. The mean surgical time was 2.8 ± 0.25 hrs. The mean hospital stay was 3.83 ± 0.65 days. Hemoglobin level decreased significantly after operation (P = 0.038). There was two deep venous thrombosis, one superficial infection and one temporal proneal palsy but no pulmonary embolism, dislocation, periprosthetic fracture or heterotrophic ossification. The mean preoperative MHHS score was 41.64 ± 5.42 in patients. MHHS score improved to 89.26 ± 4.68 in the last follow-up (P = 0.0001).
Conclusions: Our results recommend the use of cementless one-stage BTHA through Hardinge approach in patients with bilateral hip osteoarthritis.

OP04-166
HIP ARTHROPLASTY IN PATIENTS WITH COMPLEX FEMORAL DEFORMITY AFTER SURGICAL TREATMENT OF DYSPLASIA
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Introduction/objectives: Patients with complex femoral deformity, including all deformities of the femur below lesser trochanter are serious problem of THA.
Analysis of mid-term results of total hip arthroplasty in patients with complex deformities of the femur comparing with standard cases of primary THA and identify the factors influencing functional outcomes.
Methods: In Vreden Institute 73 patients with complex deformities of the femur underwent THA between 2001 and 2013 in different options: arthroplasty without femoral osteotomy (23); arthroplasty accompanied by great trochanteric slide osteotomy or Paavilainen technigue (37), arthroplasty with femoral osteotomy below the lesser trochanter (13), including 4 - at the level of deformation, 4 - with double two-stage osteotomy and 5 - with one-stage double osteotomy. All patients were assessed using Harris Hip Score before and after surgery. The results obtained in this study were processed using statistical methods, including correlation analysis.
Results: Harris hip score in mean follow-up 6.9 years (from 2 to 14 years) improved from 40.2 (95% CI 38.2 to 45.6) preoperatively up to 78.4 (95% CI 76.7 to 83.5). The analysis of various factors influencing the results showed that the most significant ones were preoperative hip function and a low level of pain (Harris Hip Score 40-45 points), residual femoral deformation more than 5 degrees, the rotation centre displacement - more than 30 mm, the offset increasing - more than 20 mm and of limb length increasing - more than 30 mm.
Conclusions: Hip arthroplasty in patients with hip arthritis associated with complex femoral deformities is technically challenging, but using of the algorithm presented by authors allows to achieve the better results.

OP04-119
MEDIUM TERM OUTCOME OF CEMENTLESS TOTAL HIP ARTHROPLASTY IN PATIENTS WITH JUVENILE RHEUMATOID ARTHRITIS
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Introduction/objectives: Juvenile Rheumatoid arthritis (JRA) is the most common type of arthritis in children usually affecting hips severely. Most surgeons rarely recommend total hip arthroplasty (THA) to this group because of potentially high failure rate. This study aimed to evaluate outcomes of modern design uncemented THA via anterior approach in JRA patients with bilateral hip involvement. Using our institutional database.