Results The mean follow-up was 11.2 years. Non-union had healed in 93.1 % of the cases. At follow-up, the two patients in whom non-union had not healed presented severe painful osteoarthritis of the wrist. Twenty patients were completely asymptomatic, while 5 complained of occasional pain in the wrist. The wrist ROM was restricted in all patients in comparison to the contralateral side. The mild osteoarthritis of the radio-scaphoid joint, already present in five patients before the operation, remained unchanged at follow-up. Mild osteoarthritis was also observed in one of the two patients with avascular necrosis. No osteoarthritis of the wrist was observed in the other patients. The average value of the DASH score was 8.7/100.

Discussion There is general agreement that post-traumatic non-union of the carpal navicular must be treated surgically even in asymptomatic cases, because degenerative osteoarthritis of the wrist is likely to occur. The Matti-Russe surgical technique is adopted by several surgeons but it requires a more extensive exposure of the articular surfaces of the carpal navicular if compared with the Matti-Russe surgical technique. The extension of the exposure as well as the time interval between fracture of the carpal navicular and surgery for the non-union could jeopardize the articular surfaces of the carpal navicular, predisposing to the development of degenerative osteoarthritis.

Conclusions The modified Murray technique performed through a lateral approach is reliable for treating non-union of the carpal navicular. The union rate is high, and the incidence of wrist osteoarthritis is low, comparable with other studies. Early diagnosis and early treatment of non-union (a short interval between fracture and surgery) minimize the risk of degenerative joint disease. Avascular necrosis of the proximal fragment is not an absolute contraindication to surgery.

HIP (in collaboration with S.I.d.A.)

ORAL COMMUNICATIONS

Dual mobility acetabular hip arthroplasty in the treatment of femoral neck fractures: a 6-year experience

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Introduction Total hip arthroplasty is widely used in the treatment of femoral neck fractures. Especially dual mobility hip prosthesis gives excellent outcomes because the head is free to move inside the new cotyle without impingement between the head, the cup and the cotyle and the head has a greater coverage so that the dislocation rate is reduced.

Methods Authors present their series of cases treated with dual mobility hip prosthesis for a neck femoral fracture since 2009. A total of 727 patients were treated. Mean age was 84 years. Regional anaesthesia was performed in all cases but very few ones (0.3 %). In all patients rehabilitation started on the first day post-operative in bed and then, progressively, on standing and walking next days.

Results Peri-operative mortality was 0.7 %, morbidity 14 %. Most common complications were: infections (3.2 %); dislocations (2.1 %); cardiovascular failure (2.7 %); hepatic-renal syndrome, HRS (1.2 %); thromboembolism (0.9 %). Revision was needed only in 1.4 % cases—generally for infection or dislocation.

Discussion Joint motility and stability are highly preserved with a dual mobility hip prosthesis. From a biomechanical point of view, outcomes are comparable to a large-diameter femoral head prosthesis, but complications rate, especially dislocation rate, are lower. It is extremely important that patients are allowed to stand and walk in a

couple of days post-operative because of the prosthesis mechanical stability.

Conclusions According to our 6-year experience the use of a dual mobility acetabular hip prosthesis is really worthwhile in the treatment of femoral neck fractures highly reducing morbidity and mortality rates.

The role of arthroscopy in hip synovial diseases

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Introduction Primary synovial diseases of the hip are rare and mostly represented by pigmented villonodular synovitis (PVNS), synovial chondromatosis (SC) and coxarthritis. Hip arthroscopy is not only diagnostic (through direct biopsy), but also therapeutic, through loose bodies removal and synovectomy. Aim of this study is to evaluate its mid-term results.

Methods Twelve cases of suspect synovial hip disease (2 PVNS, 5 SC, 5 arthrosynovites of unknown origin) underwent hip arthroscopy from 2008 to 2013. Multiple synovial biopsies, extended synovectomy, possible loose bodies removal were performed in all cases. In one SC case the central compartment was not accessible for insufficient joint distraction, and synovectomy was limited to the peripheral compartment. Patients were followed-up with X-ray/MRI and physical examination at 1, 2, 4 years after surgery.

Results All the procedures led to histopathological diagnosis, that in three cases was different from the pre-operative one (4 PVNS, 3 SC, 4 seronegative monoarthritis): a suspect SC and a suspect monoarthritis turned out to be PVNS, a suspect SC was found to be a focal labral degenerative hypertrophy and was excluded from the group. All the arthritis were aseptic and seronegative. While SC and PVNS showed a clinically and statistically significant increase of mHHS, arthritis had no benefits from surgery in 3 cases out of four. At a mean 26-month follow-up, no case of SC or PVNS relapsed, while a patient affected by PVNS underwent THA within the first post-operative year due to severe secondary osteoarthritis.

Discussion Hip arthroscopy showed to be effective and reliable both for diagnostic confirmation and for treatment. As for diagnosis, it changed the preoperative diagnosis in 25 % of the cases. As for treatment, despite the limited access to the posterior aspect of the peripheral compartment and to the caudal end of the central compartment, synovectomies performed in both cases of PVNS and SC proved to be effective. Obviously the absence of recurrences might depend only on the small sample size and on the short follow-up. Although no true benefits were obtained for seronegative arthritis, this unfavourable result may have been influenced by the severe chondral damage found in this subgroup of patients. However ruling out infections (especially mycobacteria) impacted positively the subsequent medical treatment. Conclusions In conclusion arthroscopy seems to have a definite and relevant role in the management of hip synovial diseases.

Co-morbidities in patients with hip osteoarthritis and treated with ecoguided infiltrations of hyaluronic acid: study of the effectiveness of the treatment

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