

Introduction The increase of the average age of the population has led to a growing interest in the fractures of the proximal femur. Therefore, the intramedullary nails represent the gold standard of this treatment. It provides a method of rapid execution that allows an early mobilization of the patients with early resumption of their daily activity.

Materials and methods To improve these characteristics, the author has devised the nail “BASIC NAIL”, with innovative features. The nail is full, 9, 10 mm in diameter; length 190.250 mm. The tip is tapered to facilitate sliding on the metaphyseal cortex proximal medialis. It has a single cephalic screw self-drilling and self-tapping; the distal locking hole is oval and it allows a dynamic and static distal locking. The inlet hole of the nail is made up of a hand drill of the same diameter proximal end of the nail. The nail length is 250 mm, it also allows an easy treatment of the subtrochanteric fractures, always having a precise guide for the distal locking.

Results Since January 2010, over 250 “BASIC NAIL” nails have been planted. The rehabilitation protocol was very early, loaded with walker on the third day after surgery. There were 4 failures, 2 with the protrusion of the screw, caused by the contributory cause of severe osteoporosis, excessive length of the cephalic screw and severe breakdown of the fracture load given too early, 1 “cut off” happened about 3 months after the fracture apparently consolidated, and 1 for incorrect positioning of the screw. The haemoglobin reduction before and after operation was found to be about 1.2 g as compared with 2 g of patients who were implanted with an intramedullary nail according to a traditional technique and by milling the medullary canal; this difference was evident in the fastest functional recovery, in the minor need of transfusions, but also in the reducing recovery times and thus reducing the overall costs of patient management.

Discussion The “BASIC NAIL” is an intramedullary nail innovative for the treatment of lateral fractures of the femur. Easy to use, the operative times are reduced and the installation cost is cheaper, these features make it a more suitable alternative to the nails on the market today. Its features allow a faster recovery of patients’ fractures, lower operative blood loss and less stress.

Conclusions The “BASIC NAIL” nail may reduce operating times by simplifying the technique, this is to the benefit of both the elderly patient and the young surgeon.

Results We regret 12 deaths and 1 lost sight during 10-year follow-up. The score of Postel-Merle d’Aubigne was 9.6 pre-op. and 16.7 at 10-year follow-up. We observed 2 aseptic loosening, 2 intra prosthetic dislocations by wear of the retention and an advanced wear; so, after 10 years, the rate of global actuarial survival of this cup is 94.8 %. In this series we noted the absence of episodes of prosthetic instability.

Discussion This study shows that this double mobility cup possesses a survival in 10 years comparable to the data of the literature. Double mobility does not seem to influence the quality of the acetabular anchoring. The absence of prosthetic instability in 10 years confirms big stability of the double mobility at short- and long-term. The intra prosthetic dislocation, due to the loss of retention by the polyethylene, is the main limit of this technique, but its incidence (2 % in 10 years) is weak and its treatment simple.

Conclusions We recommend the pose of this type of cup in subjects with high risk of post operating instability, but also in a systematic way after 75 years of age because instability is the first cause of later surgical resumption in this age.

The effectiveness of eco-guided infiltrations with high molecular weight associated with administration of oral chondroprotective supplements in osteoarthritis of the hip

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Introduction “Osteoarthritis” does not mean a degenerative articular process only but a pathologic expression of wear, inflammation and immunological imbalance of the joints. The articular microenvironment is represented by interactions between cartilage, synovium and synovial fluid that produce a strong and flexible system able to contrast the induced changes of biomechanical load. Chondroprotection is a valid concept in knowledge and therapeutic approach of osteoarthritis [1]. Intra-articular hyaluronic acid can be considered an important joint protection as a mechanical, anti-inflammatory and analgesic barrier; it lubricates the joint by interacting with lubricin and modulates the activity of chondrocytes and synoviocytes as well [2]. Glucosamine, chondroitin sulphate and collagen type II (SYSADOA) in oral administration act like chondroprotective factors. The intake (above 90 days) in combination of these substances is advantageous in osteoarthritis of the hip (group I-II of the K-L’s scale) [1]. Our study has the aim to demonstrate the effectiveness of eco-guided infiltrations with high molecular weight associated with administration of oral chondroprotective supplements (glucosamine sulfate, chondroitin sulphate, hydrolyzed collagen type II, hyaluronic acid and L carnitine fumarate) in comparison with the only treatment with ecoguided infiltrations with hyaluronic acid in patients suffering from primary osteoarthritis of the hip.

Materials and methods From January 2011 to February 2012, in the U.O.C. of Rehabilitation, University of Palermo, 75 patients (25 male, 50 female) with symptomatic osteoarthritis of the hip (group II of K-L’s scale) were enrolled. Patients aged from 45 and 68 years (average age: 61). The subjects were divided into two groups, A-B. In group A patients (n = 39) were intra-articular infiltrated for 3 times every 45–50 days and contemporaneously administered with oral chondroprotective supplement, in group B all the patients (n = 34) were treated with only intra-articular infiltrations. The evaluation parameters (VAS and Womac for disability scale) are checked at the

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Survival of cementless dual mobility sockets: ten-year follow-up

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Introduction We report a retrospective series at 10 years follow-up of 100 total hip arthroplasties with a double mobility cup. The purpose of this study is to estimate the survival of this cup in 10 years.

Materials and methods The studied series contains 100 total hip arthroplasties, implanted in first intention. Series is homogeneous and continue. The used implants are always the same. A stainless cotyle NOVAE SERF© who is a cup covered with ceramic of alumina, with two short contacts of anchoring and one saw superior of mooring and an holding back insert in polyethylene. A screwed stem type PRO 1 SERF© and a chrome cobalt head of diameter: 22.2 mm. The coxarthrose represents the main indication of arthroplasty and the average age during the implanting is 59.2 years. The group of the patients was regularly revised clinically and radiologically in the service. We studied the survival of this cupule in 10 years by a method actuarielle by taking as end the point the surgical resumption of the cup for aseptic cause.

time of recruitment (T0), after each intrarticular infiltration (T1, T2, T3) and 3 month later of the last infiltration (T4).

Results Both groups showed a progressive improvement of pain (VAS scale) and reduction of Womac scale. During follow-up, 3 months after the last infiltration, the data results statistically better in group A vs. group B.

Conclusions The ecoguided infiltrations with high molecular weight integrated with oral chondroprotective supplements in mild-moderate primary osteoarthritis show a synergistic effect, allowing the reduction of the pain and the functionality of the hip. 1. Mechanical injury suppresses autophagy regulators and its pharmacological activation results in chondroprotection.

References

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The use of Dabigatran Etxilate for primary thromboprophylaxis after hip replacement

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Introduction The risk of thromboembolic events for patients who have undergone a total hip arthroplasty is about of 45–70 % without a prophylaxis, for this reason a specific thromboprophylaxis is recommended. The use of low-molecular-weight heparins is often characterized by a poor compliance with reference to a subcutaneous administration. The dabigatran etexilate is a direct thrombin inhibitor administered by mouth. The objective of this research is to test a selected population of patients subjected to a primary prophylaxis by Dabigatran Etxilate after total hip arthroplasty.

Materials and methods Since November 2010 to December 2011 we carried out a primary thromboembolic prophylaxis by Dabigatran Etxilate with 80 patients who underwent a first total hip arthroplasty. We underwent a retrospective analysis evaluating all the medical records, the outpatient controls after 1–3 months from the operation and a final phone interview. We left off the patients with a moderate or heavy kidney insufficiency, liver insufficiency, coagulation alterations, uncontrolled hypertension, acute ischemic stroke in the previous 6 months, cases of hemorrhagic stroke in the previous 6 months, gastrointestinal or urogenital bleedings. We also excluded patients subjected to a therapy with oral anticoagulants, antiaggregants (except ASA). The dosage was of 220 mg daily for patients under 75 and 150 mg daily for patients over 75, prophylaxis was continued for 35 days. Collected data: length of the operation, blood loss, haemocrome pre-op. and V gg post-op., surgical drain, blood transfusion, length of the immobilization, post-surgical haematomas, symptomatic Deep Vein Thrombosis appearance, PE major-minor bleedings, adverse events, satisfaction, compliance.

Results No events of PE, of mortality correlated to thromboembolic events, one case of Deep Vein Thrombosis, two cases of major bleeding, no major adverse reactions. All the patients, except the patients with DVT, completed the therapy.

Discussion The Dabigatran Etxilate has shown its efficacy and safety, not lower than what we learn in literature, for the LMWHs. The compliance and satisfaction for the oral therapy have been higher than what is reported in literature as to a subcutaneous consumption of LMWHs.

Conclusions By a retrospective analysis of the selected patients the Dabigatran Etxilate will be an effective alternative to the use of LMWHs for both its efficacy and safety. The examined patients have shown a higher compliance and pleasure for the oral therapy as to a hypothetical subcutaneous one.

Early dislocation of THA: a multivariate analysis of risk factors

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Introduction The early dislocation of THA is one of the most feared complications with an incidence reported in literature from 2 to 5 %. This event is related to several risk factors related both to the patient and to the surgery and to prosthetic design. The aim of our study is to analyze these risk factors and their influence in dislocation.

Materials and methods We analyzed a total of 387 primary THA in 375 patients performed between September 2005 to December 2008 at our institute with femoral head size of 28 and 32 mm and two types of cups, TMT and Trilogy, all were implanted by the posterolateral approach. All patients except 53 had coxarthrosis as preoperative diagnosis. We analyzed sex, age, biometric index and BMI as factors related to the patient. For clinical evaluation we used the Harris Hip Score. The measurement of the femoral offset, abduction and anteversion angle of the cup were realized by radiographic evaluation.

Results We have had 6 dislocations (1.86 %); half of these happened to patients with preoperative diagnosis of subcapital fracture ($p = 0.0271$). We didn’t obtain statistically significant results for all the other risk factor analyzed.

Discussion The dislocation incidence in our study is in line with literature, like the major frequency of dislocation in the patients with diagnosis of subcapital fracture, which is determined by the greater ROM in the pre-operative period; this result is supported also by the highest result in the Harris Hip Score. The offset was restored in all patients. Abduction and anteversion of the cup were maintained in the “safe range” reported in literature. We obtained a major event of dislocation in the prosthesis with 28 mm head size, but this result wasn’t statistically significant.

Conclusions The subcapital fracture resulted as a condition that could predispose to dislocation of THA. The influence of the femoral head size, with only 4 mm of difference between the two groups, doesn’t seem a condition that influences the incidence of dislocation.

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Intra-tendinous therapy with PRP for Achilles tendinopathy: color Doppler vascular evaluation

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Introduction Achilles tendinopathy is usually associated with neo-vascularization; color Doppler consents the evaluation of tissue