SU3

NINE YEAR FOLLOW UP OF BIRMINGHAM HIP RESURFACING IN CONTEXT OF SURVIVAL AND COMPLICATIONS

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OBJECTIVES: Metal on metal arthroplasty is gaining acceptance around the globe. The procedure preserves bone stock and provides increased range of motion. So far good short-term results have been reported. We present the results of a nine year follow up of 4771 patients with Birmingham hip resurfacing. **METHODS:** In total, 4771 patients were included in this study and their details were entered into the Oswestry Outcome Centre database. These patients were operated by 137 surgeons from all around the world. All the patients were followed up annually and asked to inform the outcome centre in case they had a revision. Kaplan-Meier method was used to analyze the survival of this implant for different end points. Survival times were compared using log rank test (Mantel method). **RESULTS:** Out of 4771 patients there were 117 failures. Overall survival rate of the implant at nine years was 93.5 %. Two complications i.e. fracture neck of femur and implant loosening occurred in 38 and 32 patients respectively. Survival rate with fracture as the end point was 97.5% and 98.8% with loosening as the end point. There was a significant difference between survival rates of patients operated by pioneering surgeons (96.1%) as compared to others (65.9%) ($p < 0.001$). Similar difference was observed between survival rates of each group with fracture (99.0% and 69.6%) ($p < 0.001$) and loosening (99.8% and 96.4%) ($p < 0.001$) respectively. **CONCLUSION:** Our results show a significant difference in incidence of fracture neck of femur following hip resurfacing in non pioneering surgeons. This may be indicative of a learning curve in the nonpioneering surgeons.

SU4

THE COST-EFFECTIVENESS OF TITANIUM CAGE VERSUS FEMORAL RING ALLOGRAFT IN CIRCUMFERENTIAL LUMBAR FUSION: A RANDOMISED CONTROLLED TRIAL

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OBJECTIVES: To determine the cost-effectiveness of titanium cage (TC) (new intervention) versus femoral ring allograft (FRA) (standard intervention) in circumferential lumbar spinal fusion. A secondary aim was to assess whether using different methods of dealing with missing utility data changed the study conclusion reached. **METHODS:** A cost utility analysis was undertaken alongside a prospective controlled trial of 78 participants randomised to TC ($n = 41$) or FRA ($n = 37$) surgery between 1998 and 2002 from a secondary care NHS perspective. NHS resources relating to the surgery and any revision surgery needed during the 2 year trial period were record in clinical records and valued using local unit costs where available or published national unit costs. The Short Form-6D (based on 11 questions from the Short Form-36 patient questionnaire) was administered preoperatively and at 6, 12, and 24 months in order to elicit patient utility and derive Quality-Adjusted Life Years (QALYs) for the trial period. Bootstrapped mean differences in costs and benefits were generated. Missing utility data was imputed using linear interpolation in the base case but complete case analysis, available case analysis, and multiple imputation were also undertaken. **RESULTS:** A significant mean cost saving of ≤1942 (95% confidence interval ≤849 to ≤3145) was associated with FRA (UK ≤2005/6). Mean QALYs per patient over the 24 month trial period were 0.0522 (SD 0.0326) in the TC group and 0.1914 (SD 0.0398) in the FRA group, producing a significant difference of –0.1392 (95% confidence interval –0.2349 to –0.0436). Using multiple imputation resulted in a mean difference of –0.1367 compared to –0.0675 using available case analysis and –0.0518 using complete case analysis. **CONCLUSION:** From a secondary care NHS perspective, TC is not cost-effective in circumferential lumbar fusion compared to the FRA. The method of dealing with missing utility data had no impact on this conclusion.

PODIUM SESSION III: DIABETES

DB1

IMPACT OF ROSIGLITAZONE THERAPY ON THE LIPID PROFILE AND LIPID-LOWERING TREATMENT IN TYPE 2 DIABETES PATIENTS

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OBJECTIVES: To assess the impact of adding rosiglitazone (ROSI) treatment to metformin or sulphonylurea on the lipid profiles and daily medication costs (Med-costs) in type 2 diabetes patients (Type2-DM). **METHODS:** Type2-DM patients were identified based on the diagnosis or use of glucose lowering drugs during January 1,1999-June 30, 2004 using UK General-Practice-Research-Database (GPRD). ROSI patients were matched 1:1 to control patients using propensity scores and these patients were followed from the first date of the add-on therapy until the end of the 18-month follow-up period. A1C, cholesterol, and Med-costs of lipid and glucose lowering medications were compared before and after add-on therapy between the cohorts. Changes in the study variables were tested using t-test and analysis of covariance, and the mean and 95% confidence intervals for Med-costs were calculated by the bootstrap method. All Med-costs were based on 2007 UK pounds. **RESULTS:** The study matched 2669 pairs of patients, resulting in mean age of 59 and 44% female. None of the variables used for the propensity scores were significant after matching. After add-on therapy, a significant increase of the total cholesterol by 3.1% was found in the ROSI group, while a significant decrease of –6.4% was found in the control group ($p < 0.001$). A1C was reduced by 0.77% in ROSI and 0.98% in control patients. A total of 734 patients added lipid lowering drug after index date in the ROSI group compared to only 600 in control group. The estimated increase of lipid lowering daily drug cost in the ROSI group after add-on therapy was greater than that of the control group, averaging ≤0.14 vs. ≤0.11 respectively. **CONCLUSION:** After addition of rosiglitazone to metformin or sulphonylurea, patients achieved reductions in A1C, but also significant increases in total cholesterol, which resulted in increased use of lipid lowering drugs with associated costs.

DB2

COMPARING BRITISH AND GERMAN DIABETES GUIDANCE WITH RESPECT TO LONGTERM OUTCOMES AND ASSOCIATED COSTS: RESULTS FROM THE EAGLE DIABETES SIMULATION MODEL

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OBJECTIVES: Based on diabetes guidance from NICE (UK) and the German Diabetes Association (DDG) on treatment targets virtual type 2 diabetes patient cohorts were simulated over 10 years using the EAGLE model. Development of long-term complications and associated costs of both guidance were compared