1127: INTRA-OPERATIVE RE-EXCISION OF MARGINS IN BREAST-CONSERVING SURGERY: HOW WELL ARE WE ABLE TO JUDGE TUMOUR PROXIMITY?
Lorna Cook, Debashis Debnath, Zoe Lin, Raouf Daoud, Isabella Karat, Ian Laidlaw. Frimley Park Hospital, Frimley, UK

Introduction: In breast-conserving surgery (BCS), specimen margin involvement with tumour often necessitates re-operation. For this reason, extra margins are often taken at the time of primary operation. The aim of this study was to determine how often such re-excisions are appropriate.

Methods: The records of 100 consecutive patients undergoing BCS for cancer during 2011 were analysed. Data was collected on demographics, tumours characteristics, surgery performed and final histology.

Results: All 100 patients were female, median age 56 years (range 33-83 years). 66% had intra-operative re-excision of margins. In 26/66 (40%), re-excision was the correct decision. 25 of the 34 patients who had no extra margins taken at all were managed appropriately with the remaining 9 patients having close/positive margins. Unnecessary re-excisions were performed in 40/66 patients. The correct intraoperative decision was therefore made in 51% of patients.

Conclusion: The decision regarding intra-operative margin re-excision was appropriate in just over half of all cases and a second operation was avoided in 26%. However, in order to preserve as much uninvolved breast tissue as possible, further work should be done on methods to improve accuracy and to determine whether there are any patient, radiological or pathological predictors to guide intra-operative re-excision.

1181: FACTORS PREDICTING POSITIVE MARGIN STATUS IN BREAST CANCER PATIENTS UNDERGOING BREAST CONSERVING SURGERY
Euan Harris1, Andrew Lee1. 1University of Dundee, Dundee, Tayside, UK; 2Abertawe Bro Morganwg University Healthboard, Swansea, West Glamorgan, UK

Aim: To identify patient and tumour characteristics and techniques of surgical excision associated with a higher incidence of positive margins following breast conserving surgery. It was hypothesised an surgical excision associated with a higher incidence of positive margins.

Methods: The records of 100 consecutive patients undergoing BCS for cancer during 2011 were analysed. Data was collected on demographics, tumours characteristics, surgery performed and final histology.

Results: All 100 patients were female, median age 56 years (range 33-83 years). 66% had intra-operative re-excision of margins. In 26/66 (40%), re-excision was the correct decision. 25 of the 34 patients who had no extra margins taken at all were managed appropriately with the remaining 9 patients having close/positive margins. Unnecessary re-excisions were performed in 40/66 patients. The correct intraoperative decision was therefore made in 51% of patients.

Conclusion: The decision regarding intra-operative margin re-excision was appropriate in just over half of all cases and a second operation was avoided in 26%. However, in order to preserve as much uninvolved breast tissue as possible, further work should be done on methods to improve accuracy and to determine whether there are any patient, radiological or pathological predictors to guide intra-operative re-excision.

CARDIOTHORACIC SURGERY

0022: THE IMPACT OF CONCOMITANT ATRIAL FIBRILLATION ABLATION ON POST-OPERATIVE FLUID RETENTION
David McGowan1, Jonathan Hyde2, Michael Lewis2. 1Brighton and Sussex Medical School, Brighton, East Sussex, UK; 2Brighton and Sussex University Hospitals NHS Trust, Brighton, East Sussex, UK

Background: Atrial fibrillation (AF) ablation has been shown to cause alterations in fluid homeostasis hormones. This study investigated the clinical impact of concomitant AF ablation, with or without left atrial appendage removal, on fluid retention in the immediate post-operative period.

Methods: A retrospective cohort study investigating adult cardiac procedures from 2006-2011. Recorded parameters included operation type, height, weight, kidney function, post-operative diuretic usage and post-operative weight gain.

Results: In patients receiving a concomitant AF ablation (n=89) the mean day-five post-operative weight gain was 2.77 Kg (+2.39), the mean weight gain in those not receiving a concomitant ablation (n=100) was -0.34 Kg (+2.84) (p<0.001). Patients receiving a concomitant AF ablation with LAA removal (n=50) had a mean post-operative weight gain of 3.28 Kg (+2.85), in those ablation patients not undergoing a LAA removal (n=30) the mean weight gain was 1.68 Kg (+2.43) (p<0.001). The AF ablation patients not undergoing a LAA removal had significantly greater weight gain than those who did not receive an ablation (p<0.001). Age, post-operative diuretic use and pre-operative BMI were not associated with significant post-operative fluid retention.

Conclusions: Concomitant AF ablation procedures increase fluid retention and LAA removal increases this fluid retention further. These patients need to have their fluid status carefully monitored.

0071: THE PERIOPERATIVE TRANSFUSION REQUIREMENTS OF OFF-PUMP VERSUS ON-PUMP CORONARY ARTERY BYPASS GRAFT SURGERY: A REVIEW OF FIVE YEARS OF PRACTICE
Nicholas Bullock1, Paul Vaughan2, John Dunne2, Deheeraj Mehta2, 1Cardiff University School of Medicine, Cardiff, Wales, UK; 2University Hospital of Wales, Cardiff, Wales, UK

Aim: Whilst the transfusion of allogenic blood products is commonplace in cardiac surgery, its risks are becoming increasingly recognised. It has been reported that techniques avoiding cardiopulmonary bypass reduce the need for blood product transfusion. We sought to investigate this by comparing the perioperative red blood cell (RBC) transfusion requirements of patients undergoing off-pump and conventional on-pump coronary artery bypass graft procedures at our centre over five years of practice.

Method: All patients that underwent first-time isolated coronary artery bypass graft (CABG) procedures at our centre between 01/04/05 and 31/03/10 were considered for inclusion. Data were collected retrospectively from departmental and blood bank databases and analysed using SPSS statistical software. The primary outcome was receipt of allogenic RBC transfusion within the periperoioperative period.

Results: 2074 patients were included in the study (off-pump, n=569; on-pump, n=1505). Off-pump CABG was associated with significantly lower perioperative RBC transfusion requirements compared with the conventional on-pump procedure (21.1% versus 36.6% respectively, p<0.001). Additionally, in patients receiving perioperative RBCs, the off-pump technique appeared to be associated with a reduced number of units transfused, although this failed to reach significance.

Conclusions: Off-pump CABG is associated with a reduction in perioperative allogenic RBC transfusion and its risks.

0078: GLOVE PERFORATION IN CARDIAC SURGERY-WHEN DOES IT OCCUR AND DOES IT MATTER?
Kasra Shaikherezi, Maziar Khorsandi, Maria Van Dalen, William Walker, Sai Prasad. Royal Infirmary of Edinburgh, Edinburgh, UK.

Objectives: Glove perforation is a frequent occurrence in cardiac surgery. This study aimed to identify the principal aetiology of glove perforation during cardiac surgery.

Methods: Prospective examination of 200 pairs of gloves worn by surgeons/assistants at the conclusion of 100 cardiac procedures undertaken via a median sternotomy. Gloves were filled with water to detect perforations. Sub-group analyses compared (a) perforations in gloves discarded before sternal closure with the fresh gloves worn, and (b) perforation rates in changed gloves after sternal closure.

Results: Prior to sternal closure 42 (42%) surgeons and 86 (86%) assistants changed gloves. Eighty (80.8%) and 19 (19.2%) perforations were detected on the gloves of the surgeons and assistants respectively. Most perforations occurred on the right thumb of surgeons (n=18;22.5%). Glove features, number of needles and surgeons’ experience did not correlate with perforation rates (p>0.05). Changing gloves before sternal wiring did not reduce perforation rates (p=0.176). Wound infection occurred in 3 of 64 operations with glove perforation and 1 of 36 with no glove perforations (p=0.527).

Conclusions: Sternal closure is the dominant cause of glove perforation in cardiac surgery. We would recommend double gloving before sternal closure.