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(78.5% vs. 54.3%, P=0.005) whereas those with large aneurysms had better freedom from enlargement (92.3% vs. 76.5%,P=0.003). There was no significant difference in other long-term outcomes including freedom from aneurysm mortality, rupture, reintervention, conversion to open repair, endoleak, migration, kink or occlusion. Multivariate analysis demonstrated that the initial aneurysm diameter (P=0.035;hazard ratio [HR]=2.254) and age (P=0.004;HR=1.054) were independent predictors of long-term survival.
Conclusions: Despite better overall survival, patients with small aneurysms are likely to have similar graft related complications as those with large aneurysms and should therefore continue to be the part of the EVAR surveillance programme.

ASiT Medal 0134 **A PREDICTION MODEL FOR COLORECTAL CANCER BASED ON THE TWO WEEK WAITE REFERRAL PROTOCOL**
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Introduction: The aim of this study was to look at symptom combinations within the current Two Week Waite (TWW) referral protocol and create a modelling system which would determine which patients in our population are at greatest risk.
Methods: Over an eight year period data from 1,376 TWW referrals for colorectal cancer at a district general hospital was collected. The data was also used to develop a model, which looked at symptom combinations and was able to highlight which patients are most likely to have a diagnosis of cancer.
Results: Multivariate logistic regression analysis identified the following as being significant to predict a diagnosis of colorectal cancer in the population referred as 2-WWs (in order of significance); a haemoglobin of less than 10g/dL, daily rectal bleeding, abdominal pain, loss of weight and male gender. This data was used to produce a normogram for predicting cancer in TWW referrals.
Conclusions: This study has suggested a comprehensive predictive model to allow local GPs to more easily identify appropriate routes of referral. This model could be used in the future as a basis for "straight to test" protocols to further enhance the speed of diagnosis in patients with colorectal cancer.

ASiT Medal 0521 **SEGMENTAL AORTIC STIFFNESS MEASURED BY MRI IN PATIENTS WITH ABDOMINAL AORTIC ANEURYSM (AAA)**
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Background: Arterial stiffness is an independent predictor of cardiovascular risk and mortality. Stiffness has previously been assessed as carotid-femoral pulse wave velocity (cfPWV) using tonometry and is considered a gold standard. Phase contrast cardiovascular magnetic resonance imaging (CMR) measures PWV along aortic segments; these may reflect local changes that precedes aneurysm formation. Our objective was to assess PWV in presence of small AAA.
Methods: cfPWV was measured in 37 AAA patients and 43 matched control subjects using SphygmoCor. CT was used for aortic calcium scoring to analyse correlation with PWV. CMR was performed in 40 subjects to measure segmental PWV.
Results: Median AAA diameter was 3.65cm (3.0-5.5cm).cfPWV was significantly higher in subjects with AAA (mean 13.20 ± 0.4m/s) vs controls (10.94 ± 0.3 m/s; P=0.0001). CMR showed significantly greater PWV in abdominal segment vs thoracic segment in both AAA (P=0.009) and controls (P=0.002). Aortic calcium scoring in controls was in significant correlation with CMR-PWV (r=0.77, P=0.01) but not in AAA group (r=-0.27, P=0.5).
Conclusion: This is the first study of cfPWV and CMR-PWV in small AAA showing increased arterial stiffness in AAA patients. We hypothesise therefore, that AAA formation is an adaptive remodelling response to hypertension and increased arterial stiffness.

ASiT Medal 0825 **AN EXPERIMENTAL STUDY COMPARING COLLATERAL TISSUE DESTRUCTION WITH THE HARMONIC SCALPEL VS THE COBLATOR WAND – HOW DOES THIS AFFECT TUMOUR RESECTION MARGINS?**
Thiru Siva, Samuel MacKeith, Paul Gurr. *John Radcliffe Hospital, Oxford, UK*

Background: Within oncological surgery, excision margin adequacy is key in MDT decisions regarding adjuvant therapy. Technological innovation has led to such dissectors as the Harmonic scalpel and Coblator wand providing dissection with improved haemostasis. However, little is known about collateral tissue destruction caused by these techniques and how this impacts upon assessment of tumour resection margins. This study uses an animal model to quantify the collateral tissue destruction caused by the Harmonic scalpel vs Coblator wand vs cold steel dissection.
Methods: Incisions through cow tongue were made with each dissector. The residual tissue width was measured with vernier calipers and subtracted from the width of original tissue.
Results: The mean width of collateral tissue destruction for each modality was as follows:- Harmonic cutting 3.0mm , Harmonic coagulating 4.1mm, Coblation cutting 3.5mm, Harmonic cutting under tension 1.2mm.
Conclusions: This study demonstrates that the tissue destruction using the Harmonic scalpel and Coblator wand is significant when compared to cold steel dissection. These results impact upon MDT decisions due to difficulty in the interpretation of close excision margins. The findings of this study should be borne in mind when using the Harmonic scalpel and Coblation in oncological surgery.

SARS Academic and Research Prize 0912 **THE TREATMENT OF GLUE EAR USING BIODEGRADABLE POLYMERS TO DELIVER HIGH DOSE ANTIBIOTICS AND MUCOLYTICS TO INFECTION SITE**
Saif Al-Zahid, Matija Daniel, Robert Chessman, Waheed Ashraf, Heather Fortnum, Kevin Shakesheff, John Birchall, Roger Bayston. *The University of Nottingham, Nottingham, UK*

Aims: Recent evidence that otitis media with effusion (OME) is the result of a biofilm infection may explain the high rate of recurrence after conventional treatment with grommets. We aimed to test the in-vitro efficacy of antibiotics (Clindamycin and Rifampicin) and mucolytics (N-acetylcystiene) in eradicating middle ear biofilms using a biodegradable polymer that can be delivered locally.
Methods: Staphylococcus aureus biofilms of an OME origin were grown on silicone discs. Biofilms were exposed to various combinations of N-acetylcystiene, Rifampicin and Clindamicin for different time periods. Antibiotic concentrations of 100 and 1000 times above the minimum inhibitory concentration (MIC; minimum concentration needed to inhibit bacteria in free planktonic state) were used. 5 times the MIC of N-acetylcystiene was used.
Results: Combination therapy of N-acetylcystiene with 1000MIC of Clindamycin + Rifampicin eradicated biofilms in 24 hours. Biofilms were eradicated in 7 days using N-acetylcysteine alone. Biofilms were eradicated in 3 weeks using antibiotics alone at 1000MIC.
Conclusion: Combination therapy of N-acetylcystiene with antibiotics seems to be effective in eradicating biofilms. Delivering combination therapy directly into the middle ear using controlled-release biodegradable polymers is now being explored as a potential novel strategy to combat OME.

SARS Academic and Research Prize 0186 **ETHNIC DIFFERENCES IN CIRCULATING MARKERS OF ANGIOGENESIS AND THEIR ASSOCIATION WITH CARDIOVASCULAR RISK FACTORS AND PERIPHERAL ARTERIAL DISEASE**
Philip Bennett [1], Paramjit Gill [1], Stanley Silverman [2], Andrew Blann [1], Julia Chakathayil [1], Gregory Lip [1]. [1] *University of Birmingham, Birmingham, UK;* [1] *Sandwell & West Birmingham Hospitals NHS Trust, Birmingham, UK*