

is one such craniofacial abnormality. Surgical treatment aims to restore function and provide individuals with a more normal appearance. Geometric Morphometrics (GM) and the Linear Morphometrics (LM) are two methods used to plan and assess outcomes following craniofacial surgery, our study aims to compare the two.

**Method:** Retrospective analysis of 3D CT scans of 21 Aperts patients (pre and post-op patients) and 90 control scans (normal individuals). Landmarking of each scan was carried out using LM landmarks, six key landmarks were analysed calculating mean values and standard deviations. Each scan was marked using the GM landmarks and average Dense Surface Correspondence (DSC) models created. Six key landmarks were measured on the DSC models and compared to the mean measurements of the LM group. A Wilcoxon test was used to analyse the data.

**Results:** Our results demonstrated no significant difference in landmark measurements between the two groups (Wilcoxon test  $p > 0.05$ ). However, the Geometric Morphometric methodology allowed for more scope in planning by producing three-dimensional models allowing better visualisation of facial structure.

**Conclusion:** The Geometric Morphometric method was found to be compatible with Linear Morphometrics in this study. In addition, the Geometric Morphometric method is able to provide more information on the contour and shape of face and hence more useful in planning for craniofacial surgery.

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#### P77

### A Unique Case of Multiple Carotid Artery Aneurysms in a 10-Year Old Child

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**Introduction:** Aneurysmal disease in children is rare, and is often associated with an underlying connective tissue disorder, arteritis, trauma or infection. More unique is the presence of multiple aneurysms of the carotid system, involving either the intracranial or extracranial portion of the arterial system. In cases of extensive aneurysms extending towards the skull base, surgery becomes even more challenging. We present a unique case of combined surgery and interventional radiological management for a giant extracranial carotid artery (ECCA) aneurysm associated with multiple smaller intracranial aneurysms in a healthy 10-year-old boy.

**Methods:** Our patient presented to Great Ormond Street Hospital with a painless atraumatic swelling of the left sided neck noted over preceding weeks. Aside from generalized joint hypermobility, he did not exhibit any other features of Ehlers Danlos or stigmata of disease and was otherwise healthy. Radiological embolisation of the smaller intracranial aneurysms was followed by a two-team approach to

surgery. The Maxillofacial team provided access to and exposure of the giant ECCA via a lip split and midline mandibular osteotomy, allowing the Vascular team to excise the aneurysm via clip ligation.

**Results:** No adverse events have been noted during his 6-month postoperative follow-up.

**Clinical Relevance:** We highlight the importance of early diagnosis and prompt operative intervention of giant ECCA necessary to prevent major and life-changing complications in the paediatric population.

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#### P78

### Audit of compliance with National Guidelines for extraction of wisdom teeth

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**Introduction:** The removal of wisdom teeth is a common surgical procedure within dentoalveolar surgery. The reason for extraction can be associated with a number of pathological changes such as pericoronitis, caries or cysts.

As with all procedures, there are potential risks and benefits associated with intervention.

**Standards:** The aim for the project is to improve care for patients who are referred into the hospitals for wisdom tooth removal, by complying with best evidence based practice

1. The National Institute for Health and Clinical Excellence (NICE) – Guidance on the extraction of Wisdom Teeth March 2000
2. Scottish Intercollegiate Guidelines Network (SIGN) Management of Unerupted and Impacted Third Molar Teeth September 1999

**Method:** There were 673 removal procedures carried out at Pinderfields General Hospital in 2015; a retrospective case note review was conducted for the last 67 (10%) patients who had a total of 100 wisdom teeth removed. Comparison was made with previous audit results

#### Results:

Guidance Followed	2012	2013	2016
<b>Total extractions</b>	<b>84</b>	<b>25</b>	<b>100</b>
NICE	90%	76%	90%
SIGN	90%	80%	90%
Both	90%	68%	87%
Neither	10%	12%	7%

**Conclusion:** Although there is an overall improvement in the compliance with either guidance, it does not meet the 100% recommended local standard. As such, this audit shows a short falling of the recommended local standard.

There have been recent changes to SIGN with it being discontinued. If this is taken in to context, a local agreement needs to be made whether patients should only be listed according to NICE guidelines.

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**P79**

**Is routine microbiology swabbing necessary in odontogenic infections? A 5-year retrospective study of microbiology reports at Western Sussex Hospitals NHS Foundation Trust**

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**Introduction:** The objective of this study was to determine whether microbiology reports of pus swabs following drainage of odontogenic infection was likely to impact on patient management.

**Materials and Methods:** A retrospective study of microbiology results following drainage of an odontogenic infection at St. Richard's Hospital over 5 years. Patients identified by clinical codes: "Drainage of abscess of alveolus of tooth" or "Other operations on mouth" + "Unspecified drainage of organ NOC". Reports accessed via the hospital results reporting system.

**Results:** 184 patients identified. 83 were excluded from this study (the majority not sent for testing) leaving 101 records examined. Average length of stay was 2 days, time to first report: 4 days, time to finalised report: 15 days. 40 (39.6%) cases had no pathogen growth, 66 (65.3%) showed commensals, 35 (34.6. %) mixed growth and 31 (30.7%) specific species. Sensitivity testing was not performed in 82 (81.2%) of 101 cases. Of the remaining, all but one were sensitive to first line antibiotics (penicillin or metronidazole). The last was a Staph. Aureus sensitive to Flucloxacillin. 2 (2%) cases were resistant to Erythromycin, and 1 (1%) resistant to Penicillin.

**Conclusion:** Microbiology testing offers little information at time of treatment, with 89% of reports only available after discharge and 81.2% not providing sensitivity or resistance data. At approximately £25 per testing process, the trust could save £2500 over this period if these tests are not carried out as routine.

Other clinical codes will be examined to capture a greater number of treatment episodes.

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**P80**

**Success of closed exposure for impacted upper canine teeth combined with orthodontic traction: A retrospective study**

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**Background:** Impacted permanent canine teeth occur in 2% of the population. The incidence of maxillary impaction is 85%, with 8% occurring bilaterally. The incidence of palatal impaction is higher than to buccal impaction.

The aetiology of maxillary impaction is unknown, although arch width discrepancy and anterior positioning are frequently cited causes. The condition is managed surgically, either by open or closed exposure techniques.

**Aims:** This study aimed to evaluate the success of a one-step closed surgical technique for exposing and guiding into occlusion the impacted maxillary canine teeth.

**Methodology:** Retrospective review of cases surgically managed with closed exposure of impacted maxillary canine teeth. Data was collected on tooth position, site of gold chain placement and treatment outcome.

**Results:** 107 cases with full records were identified. 10 patients failed to achieve fully positioned canines (9.3%). 8 canines were palatally impacted and 2 were in the line of the arch. The chain was positioned on the palatal aspect in 9 cases and buccally in 1 case.

Only 1 chain debonded (0.9% failure rate). The remaining 9 underwent re-operation; 6 for re-bonding, 2 for surgical removal of the tooth and 2 for open exposure.

**Conclusions:** The reported debond rate is 8%, so 0.9% is a satisfactory result. However there is no equivalent data for failure of canine traction. Overall this study had a 90.7% successful alignment rate with closed exposure.

The reason for the high failure is assumed to be the unfavourable canine position and is the subject of an on-going prospective study.

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**P81**

**The role of CBCT in OMFS practice**

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CBCT is relatively novel modality and appears to be a potentially useful addition in management of patients in Oral and Maxillofacial Surgery. We report our analysis of CBCT carried out over 24 months in Airedale General Hospital.

**Method:** Data was collected for patients where CBCT was requested, including; referral details, diagnosis, plain films