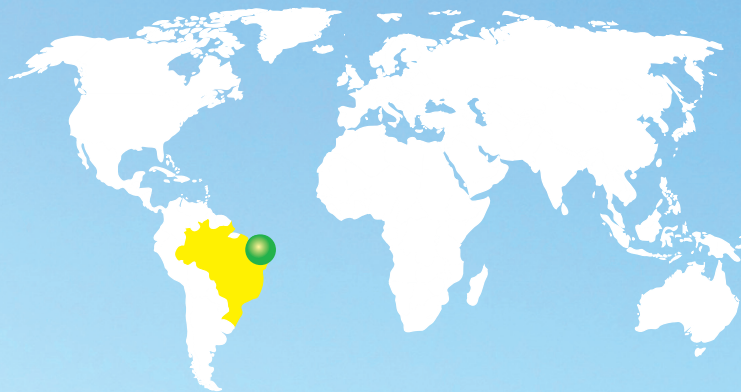




# CLEFT 2009

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**Cleft and Craniofacial Care:  
Experience, Evolution and Innovation**

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#### COMPARISON OF FISTULA AFTER PRIMARY PALATOPLASTY WITH FURLOW OR LANGENBECK PROCEDURES IN CHILDREN WITH ROBIN SEQUENCE

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**Introduction:** Fistula is a major complication after primary palatoplasty in children with cleft palate. Limited data addresses fistula outcome in children with Robin Sequence while controlling technique for primary palatoplasty

**Objective:** The objective of this study was to compare fistula outcome in children with RS operated with the Furlow palatoplasty (F) to children with RS operated with the the von Langenbeck palatoplasty with intravelar-veloplasty (VL).

**Methods:** This retrospective study involved a review of medical records of 69 children with isolated RS, 36 operated with VL (52%) and 33 with F (48%) by the same plastic surgeon. Mean age at palatoplasty was 19m (SD=7) and 29 participants were males (42%) while 40 were females (58%). Plastic surgeon and speech-language pathologist records of fistula involving hard and/or soft palate were identified. Severity of the cleft was also observed.

**Results:** Fistula were observed for 5 children (14%) operated with the VL procedure and 8 (24%) for those operated with the Furlow procedure. The difference between the groups was not significant (p=0.283). Complete cleft palate was found for 15 (46%) of the patients operated with Furlow and 19 (53%) of those operated with Langenbeck. The remaining patients had incomplete clefts.

**Conclusion:** The F procedure yielded more fistula than the VL even though Langenbeck had slightly larger number of more severe clefts.

#### OUTCOME OF A RANDOMIZED CLINICAL TRIAL COMPARING FURLOW TO LANGENBECK PRIMARY PALATOPLASTY IN UCLP

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**Introduction:** A call for outcome studies after primary palatoplasty in children with cleft lip-palate (CLP) while comparing surgical procedures still current in the literature. Surgery targets low incidence of fistula and velopharyngeal dysfunction (VPD) while minimizing risk for dental-arch discrepancies.

**Objective:** The objective of this study was to compare outcome of primary palatoplasty with Furlow and von Langenbeck procedures.

**Methods:** Fistula rate, occurrence of hypernasal speech and dental arch relationship was reviewed for 110 children with unilateral CLP operated by the same surgeon, 53 received the Furlow procedure and 57 the von Langenbeck with intravelar veloplasty for primary palatoplasty. A plastic surgeon visually identified presence and location of fistula during oral examination. Speech-language pathologists identified patients with VPD using speech ratings and instrumental evaluation when needed. Orthodontists identified dental arch relationship (Goslon Index) using casts obtained during mixed dentition stage.

**Results:** Fistula was identified for 20 patients (38%) who received Furlow with lateral incisions were used for 14 of these 20, and was identified for 9 patients (18%) who received Langenbeck, with lateral incisions were used for 6 of these 9 patients. Secondary management of VPD was needed for 8 (15%) of the Furlow patients and 15 (26%) of the Langenbeck. The mean Goslon Index indicating dental arch relationship was 2.91 with the Furlow (2.94) group slightest higher than the Langenbeck (2.75).

**Discussion:** Clinical and statistical significance will be discussed.

#### HAS THE RADIOGRAPHIC OUTCOME FOR ALVEOLAR BONE GRAFTING IMPROVED IN THE UK? A NATIONAL AUDIT OF 2006 PROCEDURES.

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**Aim:** Compare the current radiographic outcome in the UK with CSAG reported outcome for alveolar bone grafting.

**Method:** Post operative radiographs from procedures performed in 2006 were assessed blindly by three external calibrated examiners on 2 separate sessions. The radiographs were assessed with the Kindelan index. All patients who received an alveolar bone graft were included. The standard used was the success rate as assessed in UCLP cases in the CSAG report (58%).

**Results:** Radiographs were submitted from surgical centres in the UK. We will report the national and anonymous surgical centre descriptive statistics for radiographic outcome as assessed by the Kindelan Index. Intra and inter-examiner reliability will also be reported.

**Conclusion:** We will discuss whether radiographic outcome has improved since the assessment by the CSAG report in the UK. This will provide a current benchmark for future national audit when assessing alveolar bone grating in all forms of clefting involving the alveolus.

#### ALVEOLOPLASTY: AN ANALYSIS OF 168 PATIENTS

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**Introduction:** Alveoloplasty is required to fill the osseous cleft & to stabilize the segments.

**Material & Methods:** 168 patients had alveoloplasty from April 1997 to November 2006 were studied. There were 78 males and 90 females and there age ranged from 6 to 31 years (mean 11). There were 213 alveolar clefts in 168 patients, comprising 123 unilateral (R51 & L72) and 45 bilateral clefts. The cancellous iliac bone graft covered by gingival-mucoperiosteal flap was carried in all patients.

**Results:** Of the total patients 42% were in 6-12 years, 39% in 13-18 years and 19% in >18 years age group. The complete canine eruption occurred in 149 (89%) patients. The septal height of Type-1 in 75%, Type-2 in 17%, Type-3 in 5.6% and Type-4 in 2.4%, clefts was observed. The partial graft exposure in 7 clefts (4.2%), hematoma & sinus in 5 donors (3.0%), and transient lateral femoral cutaneous paresthesia in 4 patients (2.4%) were the complications. Twelve clefts needed re-grafting. The wound infection and graft loss was much higher in older patients and this possible can be related to the oral hygiene. The stable maxillo-alveolar segment was achieved in majority of patients and oral hygiene was improved in all patients. The follow-up of 2 to 7 years (Mean 3 years) in these patients showed that optimal results are obtained if is carried out in 6 to 12 years age group.

**Conclusion:** Alveoloplasty is recommended between 6 to 12 years of age.