

Oronasal Fistula Frequency in Complete Soft Palate Cleft Repair A Cohort Study

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ABSTRACT

Aim: To determine the frequency of Oronasal fistula in patients undergoing complete soft palate cleft repair by Von Langenbech palatoplasty.

Study Design: Prospective study.

Place and duration of study: Department of Plastic Surgery, Bashir Hospital, Sialkot from April 2016 to April 2018.

Methods: Patients for repair of soft palate cleft were admitted. Informed consent, both for the purpose of research and surgery was taken. Soft palate clefts were repaired with Von Langenbech palatoplasty. Patients were discharged on second post op day. They were followed up at third week postoperatively. At follow up visit, fistula formation was recorded in a proforma. Data was entered and analysis done by SPSS v 22.

Results: Total 75 patients were operated. 50 patients (66.66%) were female and 25 patients (33.33%) were male. The mean age was 2.7± 1.5 years ranging from 9 months to 6 years. Two patients were reported with fistula at the third week follow up which showed the fistula rate of 2.66%.

Conclusion: The results of this study revealed that Von Langenbech palatoplasty is a better approach for the repair of complete soft palate cleft as it allows bipedicled mucoperiosteal laps to be transposed in midline in a tension free manner.

Keywords: Oronasal fistula, soft palate cleft, palatoplasty

INTRODUCTION

The surgical repair of cleft palate has some complications most common of them is Oronasal fistula in which the nasal cavity is communicated with the oral cavity. It forms when procedure of cleft palate fails to close the existing defect. Its incidence varies in different settings and patients but once it forms, and is annoying for patient and sometime also for the surgeons¹.

It can be identified when the food is regurgitated after eating and voice becomes more nasal in quality, patient can also experience unpleasant taste and smell, catarrhal symptoms or hearing problems².Fistula can occur in early days of post-op time or months later. In former case, its management should be waited until the complete resolution of inflammatory reaction already induced by surgical procedure³.

Mostly this fistula occurs at hard palate or at the site where soft & hard palate join.Reasons can be infection, necrosis of flap, tension at repair are, less experienced surgeon, poor technique of suturing and presence of hematoma⁴. If some trauma occurs during the healing process of surgical wound or if palate is not completely attached to the mucosa of nose during repair, fistula forms & becomes annoying for the patient⁵.

Shapes of oronasal fistulae can be oval, slit-like or pin-point . Their size can be small (1-2mm), medium(3-5mm) or large(>5mm).If size is small, repair becomes easy. But closure is difficult in case of large & complex defects, scarring, and multiple fistulas⁶. To cover the fistula, either

locally a flap can be placed over it or tissue from some other site can be used⁷.Types of flaps used can be: buccal, flap of mucosa of buccal cavity or tongue, micro flaps which are in braided forms or combined flaps of mucosa and muscles. They can be placed in single layer, double layers or in 3 layers⁸.

Palatal cleft should be repaired by tension free method and infection should be prevented, so that oronasal fistula can be avoided. But once this fistula forms, it should also be repaired by surgery. Recurrence occurs in 25% of cases after repair, which is lessened if fistula repair is done by 2 or 3 layers of flap tissue^{9,10}.

PATIENTS AND METHODS

Patients for repair of soft palate cleft were admitted. The referral of patients was from the peripheral hospitals and general practitioners. The patients were serially admitted. Informed consent, both for the purpose of research and surgery was taken. Soft palate clefts were repaired with Von Langenbech palatoplasty. Patients were discharged on second post op day. They were followed up at third week postoperatively. At follow up visit, fistula formation was recorded in a proforma. Data was entered and analysis done by SPSS v 22.

RESULTS

General statistics are shown in the Table I
Complications encountered are recorded in Table II
Table I: General Data

Total no of patients in Study	419 (100%)
Age	9 months to 6 years
Males	
Follow up	Mean 4month
Associated anomalies	1
Ear	0
syndactyly	1

Table- II Complications

Oronasal fistula	2	2.66%
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DISCUSSION

A total of 419 patients were included in the study from age groups 9 months to 6 years. The mean follow up duration was 4 months. According to the study conducted in our setup 1 percent of the total had associated anomalies. While the study conducted by Guerrero-Santos J et al¹¹ total percentage of associated anomalies was 3 percent. None of the Ear anomalies were reported in our study however total cases reported with ear anomalies in the study conducted by

Jackson IT et al¹² were 2 percent. In our study total cases reported with syndactyly were 1 percent while in study conducted by Agarwal K et al¹³ 2 percent of the total reported with syndactyly. Total cases reported with oronasal fistula were 2 percent while in study carried out by Pribaz J et al¹⁴ 4% of the total had oronasal fistula.

Conflict of interests: No conflict of interests to be declared

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