



PALATAL FISTULA - A CASE SERIES

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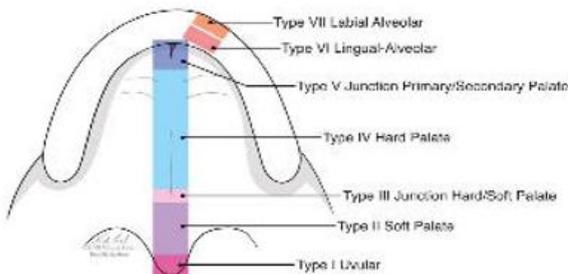
ABSTRACT Palatal fistulas are a surgical challenge to manage because of its high recurrence rate, paucity of local tissue and significant symptomatic complain to the patient due to it. Here is a series of various types of cases that presented to our department over a period of three years and the modalities with which they were managed.

KEYWORDS : Palatal fistula

INTRODUCTION

Palatal fistulas are oronasal fistula which is an abnormal communication between oral and nasal cavity lined by epithelium. It can present post trauma, post inflammation, post malignancy and post surgery. Patients can present with complains of regurgitation, hypernasal speech, velopharyngeal insufficiency, difficulty in swallowing and chewing depending on its location. This continued communication between oral and nasal cavity can lead to bacterial superinfection of paranasal sinuses. The incidence depends on surgical and patient factors like poor wound healing, infection, tissue ischemic, tension on closure, haemorrhage into the dead space etc.

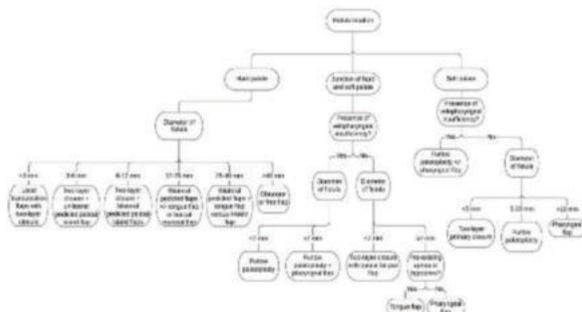
The recurrence rate post palatoplasty is around 10%. Several attempts have been made to describe oronasal fistulae by size, location, and functionality in an attempt to create standardized assessments of fistulae for discussion and reporting of outcomes. When discussing treatment options, it is helpful to consider the size of fistula as small (1-2 mm), medium (3-5 mm), or large (>5 mm). More complex classification systems defining fistulae type based on location and functionality exist, such as the Pittsburgh Fistula Classification System.



Pittsburg Classification

Palatal Fistula Therapies

1. NON-SURGICAL - Palatal plates and obturators
2. SURGICAL - two layer repair - nasal and oral lining - local, regional or distant flaps



The surgical management would depend on location and size of fistula, condition of the surrounding tissue and condition of the patient.

Various methods have been described for surgical repair of fistula like the Bardach - 2 - flap palatoplasty, Von Langenbeck Bipedicle Flap, Furlow's double opposing Z-plaster, tongue flap, pharyngeal flap, buccal myomuscular flap, radial forearm free flap and many more.

MATERIALS AND METHODS

This is a retrospective case series and record review of patients operated in our department between January 2021 - September 2023. A total of 5 cases with Palatal fistula had been operated during this duration and were treated with one or other surgical technique depending on various factors influencing the choice. Analysis was done preoperatively, intraoperatively, immediate postoperative and in the following months to check the site for wound healing, any residual opening, symptomatic improvement and results evaluated.

Case 1 -

14/F operated for cleft palate surgery (Furlow's Palatoplasty) at the age of 4 years. Presented with complain of hypernasal speech and regurgitation since last 2 years. On examination she had a fistula over soft palate with oblique uvula. She also has velopharyngeal insufficiency. Intraoperatively there was medialization of carotids hence pharyngeal flap was contraindicated. Redo Furlow's palatoplasty was planned. Upon healing patient has no regurgitation and is in speech therapy for nasal speech in which she is progressing nicely.



Case 2 -

17/M, presented with complains of regurgitation and nasal speech since 2 months. He had developed ulcer over palate two months ago, which was managed conservatively. As the ulcer healed, it developed into fistula. He has no regurgitation and normalization of speech on healing.



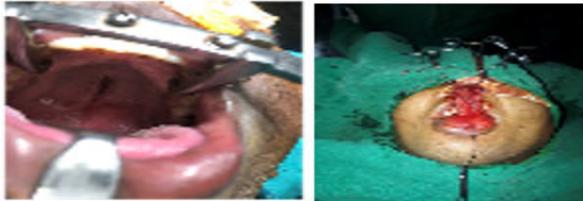
Case 3 -

19/M operated previously for Burdach 2-flap palatoplasty at the age of

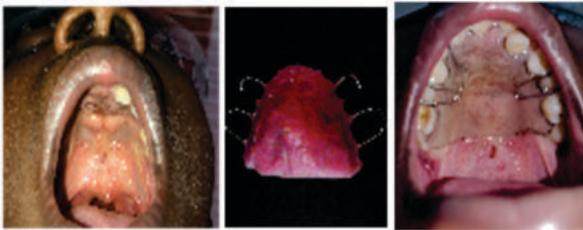
6 years, presented with nasal regurgitation. Local rotation-advancement flap planned which led to resolution of symptoms on healing of fistula post surgery.



Case 4-
40/M presented with post traumatic Palatal fistula post pan facial fracture. Due to severe fibrosis of Palatal mucosa, local flaps could not be planned. Hence fistula was covered with tongue flap.



Case 5-
16/M, known case of Pierre-Robin sequence presented with complain of regurgitation and nasal speech. He was operated for Bardach 2-flap palatoplasty 10 years ago. Since he also had very scarred tissue and current systemic comorbidities - he was chosen for obturator fitting temporarily.



RESULTS

As shown in previous cases, surgical option depends on size and site and quality of the surrounding tissue as well as condition of the patient. All patients has significant improvement in their symptoms and were satisfied with the outcome of their surgery.

DISCUSSION

Even today, Palatal fistula and its repair technique are associated with greatest challenges in reconstructive surgery. A successful treatment outcome is expected after palate fistula repair if the patient achieves normal speech, no regurgitation without maxillofacial growth disturbances.

Factors predisposing to development of postoperative dehiscence or fistula include width of the palatal cleft, amount of deficiency of palatal segment, misplacement, and distortion of the cleft segment. Other extrinsic variables considered for the fistula formation are the timing of repair, sex of the patient, surgical procedures, and the operating surgeon. Early dehiscence and fistulas are primarily caused by errors in technique such as inadequate mobilization, closure under tension, injury at reintubation, poor handling of the tissue, failure to achieve a layered closure, and postoperative bleeding and infection.

CONCLUSION

Choosing a method of repair is based on various factors and should be modified according to each case. Postoperative follow up revealed minimal complications and good patient outcome. Additional cases need to be studied and evaluated further to provide better reliable results.

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