TESSIER CLEFT NO. 7: REPORT OF 12 CASES
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ABSTRACT: Tessier cleft 7, also known as Transverse facial cleft or congenital macrostomia, is a rare congenital anomaly. It presents with varying degree of severity and is associated with anomalies of other structures developing from first and second branchial arches. We report twelve cases of Tessier cleft 7 presenting to us at various ages. The cases were studied on the basis of antenatal and family history, age, sex, laterality, severity and other associated anomalies. The clefts were classified complete or incomplete on the basis of their lateral extension. Surgical correction of the clefts consisted of soft tissue repair and correction of associated deformities with satisfactory functional and aesthetic results, without any intra-operative and post-operative complications.

KEYWORDS: Tessier cleft no. 7, transverse facial cleft, congenital macrostomia.

INTRODUCTION: We report twelve cases of Tessier cleft no. 7 or Transverse facial cleft of varying severity, which is a rare congenital anomaly. It results from failure of fusion of mandibular and maxillary processes of the first branchial arch(1) and so Tessier cleft 7 is also associated with anomalies of the structures arising from first and second branchial arches. The reported incidence varies from 1 in 100 to 1 in 300 of all facial clefts (2). The deformity can be surgically corrected with good functional and aesthetic results as in our cases.

CASE HISTORY: The reported cases did not have family history of facial clefts, consanguinity or suggestive antenatal history. The age of the patients ranged from 4 months to 22 years. The male and female ratio was 5:7. Out of the twelve patients one had bilateral and two had right sided involvement. So out of thirteen clefts nine were left sided. The associated anomalies included pre-auricular skin tags, sinus in the cheek, vascular malformation, well developed but small accessory ears, microtia and hemifacial microsomia.

Two cases including the bilateral did not have any associated anomalies. The clefts not extending up to the anterior border of masseter were grouped as incomplete and those extending up to or beyond the anterior border of masseter were grouped as complete. We had only two cases of complete clefts.

All the cases including the bilateral were repaired in one stage. The repair consisted of marking the proposed site of new commissure, repair of the mucosa including that of the commissure, restoration of orbicularis sphincter and integrity of cheek muscles and z-plasty closure of skin. Associated anomalies like skin tags, sinus and accessory ears were excised in the same stage. One patient with hemifacial microsomia is waiting for total ear reconstruction. There were no intra-operative or postoperative complications and aesthetic results were satisfactory after up to six months of follow-up.

DISCUSSION: Transverse facial cleft or congenital macrostomia or Tessier cleft no. 7 is a rare congenital anomaly.(1,2,3) The etiology is explained by failure of fusion of mandibular and maxillary
processes of the first branchial arch;\(^{(1,3)}\) although facial clefts are also reported to be caused by amniotic bands.\(^{(2)}\) Various classifications have been proposed, but the Tessier classification founded on the basis of clinical observation, is accepted widely.\(^{(4,5)}\)

The associated anomalies include pre-auricular skin tag, microtia, absence of temporo-mandibular joint, zygomatic arch, eye lids, accessory maxilla,\(^{(3)}\) polydactyly and cardiac anomalies.

Our cases were grouped complete and incomplete, depending on the cleft reaching or crossing the anterior border of the masseter muscle. The reported incidence is 1 in 100 to 1 in 300 of all facial clefts.\(^{(1)}\) Transverse facial clefts are known to be more common in males and have left predilection.\(^{(1,6,7)}\) Contrary to this, we had seven female cases out of twelve but left predominance was seen in our cases. Bilateral clefts are even rarer and we had one bilateral case.

The clefts should be repaired\(^{(6,7,8,9)}\) early to relieve parent’s anxiety. We repaired two cases at the age of three and four months. Although many operative techniques have been described, the goal of repair is symmetry of the lip commissural shape, restoration of oral sphincter and good scar quality which is achieved by z-plasty. All our cases had satisfactory functional and aesthetic outcome.

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TRANSVERSE FACIAL CLEFT ASSOCIATED WITH HEMIFACIAL MICROSOMIA

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