Original Article

Tessier Number 30 Facial Cleft: A Rare Maxillofacial Anomaly

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Abstract

Introduction: In number 30 facial cleft patients, the deformities vary in their presentation, ranging from minor clefting of the lower lip (2) to complete clefts of the mandible with absence of the hyoid bone, thyroid cartilage, and manibrium. **Materials and Methods:** A case of Tessier number 30 facial cleft with only lower lip deformity is reported in this paper. **Results:** The pathognomonic features of the facial clefts were reviewed in terms of the related literature. **Conclusion:** We aimed to remind the pathology and review the literature in this report.

Keywords: Cleft lower lip, midline cleft, Tessier number 30 cleft

Introduction

Number 30 facial cleft was first reported as a caudal extension of number 14 and number 0 facial clefts by Tessier in 1976.[1] The deformities vary in their presentation, ranging from minor clefting of the lower lip[2] to complete clefts of the mandible with the absence of the hyoid bone, thyroid cartilage, and manibrium.[3] In this article, we present a case of midline lower lip cleft that was repaired in late adolescent period and a review of the literature.

A 20-year-old male patient was referred to our clinic with a midline cleft and ulceration of the lower lip without any other involvement [Figure 1]. Several treatment methods such as antibiotic ointments and antihistaminic drugs had been tried for the ulcer by dermatologists; however, the pathology was not resolved.

In physical examination, the upper lip, tongue, nose, and frontal region were found normal. The mandible and the soft tissue of the neck were not involved. Radiographic confirmation was done. Written consent was obtained from the patient, and the surgical approach was planned.

Under local anesthesia, an elliptic incision was performed, ulcer was debrided, and the orbicularis oris muscle was identified. Free edges of the muscle were dissected and sutured together in the midline. Mucosa and the vermillion line were connected meticulously. No complications were observed in the early postoperative period. At 10-month follow-up, the patient was satisfied with the result [Figure 2].

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DOI: 10.4103/tjps.tjps_7_18

Discussion

The incidence of craniofacial clefts is estimated between 1.4 and 4.9/100,000 live births.[4] Although two genders are being affected by craniofacial clefts, girls are more commonly affected. The pathology can develop due to large doses of radiation, infection, vitamin deficiencies, metabolic syndromes, and Vitamin A toxicity.[5-7]

In Tessier Classification, clefts 0–14 radiate around the orbital bone rims [Figure 3 and Table 1]. Tessier number 0 and number 3 are seen to be the most commonly reported cleft types in both genders in the literature.[8,9] Tessier number 30 cleft of the face is a rare congenital anomaly. The deformity occurs as insufficient fusion of first branchial arc or the failure of mesodermal penetration in midline.[10] Anomaly can range from a lower vermillion notching to the involvement of the teeth, tongue, mandible, and neck.[11-14] Tafreshi *et al*. reported a Tessier number 30 cleft case with congenital heart defects.[13] One patient was reported by Adetayo and Martin[15] with a Tessier number 30 cleft concomitant with levocardia, ventricular septal defect, a patent foramen ovale, double outlet right ventricle, intestinal malrotation, and bilateral undescended testicles. Vendramini-Pittoli *et al*. published two Tessier number 30 cleft cases. One of them was accompanied

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How to cite this article: Sari E. Tessier number 30 facial cleft: A rare maxillofacial anomaly. Turk J Plast Surg 2018;26:12-9.

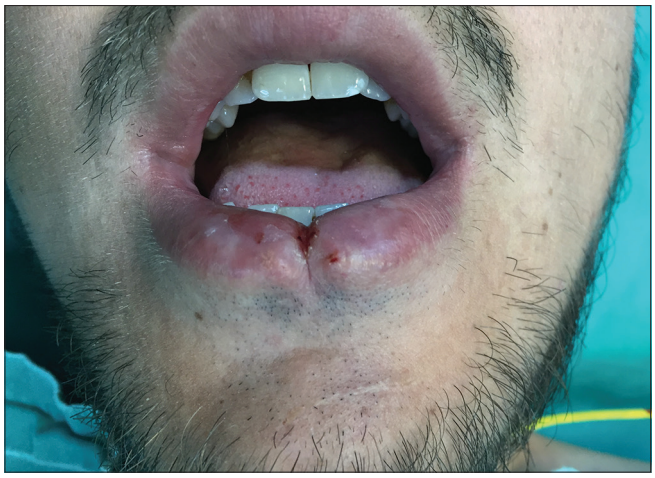

Figure 1: A 20-year-old male patient with notching and ulceration on the lower lip

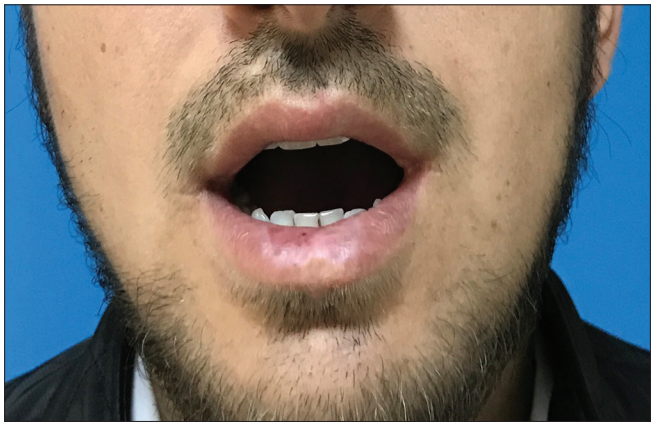

Figure 2: View of the patient in the postoperative 10-month follow-up period

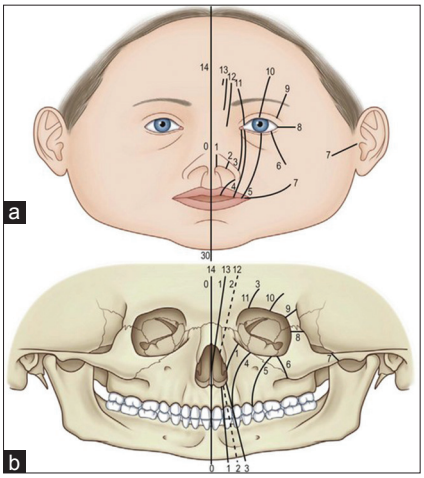

Figure 3: Schematic Tessier Classification of the craniofacial clefts (a) Bony clefts, (b) Soft tissue clefts

by a Tessier number 7 cleft, and the other one had developed together with Tessier number 4, 7, and 9 clefts.[16] Moreover, nasal anomalies and cleft lip and palate can also be seen with Tessier number 30 facial clefts.[17-19]

Midline cleft of the lower lip and mandible can also be a sign of a syndrome, such as the Robinow syndrome which presents itself with extremity, genitalia, costa and vertebra anomalies,[20] or the Richieri-Costa syndrome which involves limb defects.[21]

The prenatal diagnosis of the Tessier number 30 cleft can be made through ultrasonography at 15–18 weeks of the pregnancy.[22]

Reports about this pathology are rare in the literature.[10] Less than 80 cases have been reported since the first article by Couronné.[10,23] There are a few cases of craniofacial clefts reported from Turkey;[24-27] moreover, only two papers reporting cases from Turkey that are accompanied by a simple lower lip defect.[24,28] Due to this rarity, it can be said that there is no consensus on the management of this deformity. Therefore, we decided to prepare an algorithm for the treatment of the pathology.

Simple notching of the lower lip can be treated with wedge excision or Z-plasty.[29] Lip deformity and bifid tongue should be corrected as early as possible due to functional deficits. Duplication of the tongue can be corrected with wedge excision or Z-plasty. In addition, the tongue should be released from the floor of the mouth.[30]

Clefts of the mandible can be treated with one- or two-stage procedure depending on the range of the defect.[31] Most surgeons begin the procedure when the child is about 10-year-old to avoid tooth bud damage and use interosseous wires or plates.[32] On the other hand, Oostrom *et al*. report that a carefully planned osteosynthesis of the base of the mandible does not harm the buds and may provide better occlusion.[33] If the mandibular cleft is too wide, the bones should be stabilized at an early age to avoid obstructing eating and breathing.[34] A bone graft harvested from the costa, calvarium, or iliac crest can be inserted around the age of 10 in the second stage.[28,35,36]

One of the largest case series was reported by Freitas *et al*. with 17 patients aged from 1 month to 30 years.[36] Early surgery was performed in two patients with sleep apnea and impaired nutrition using distraction osteogenesis to achieve better tongue movement. They used Z-plasty for mucosal bands, muscle repair for the contraction, and straight closure of the skin in a few patients. Early bone grafting was recommended in this report to establish mandibular continuity.

The strap muscles of the neck are often replaced with dense scar tissue and cause flexion contracture bands and can be repaired with multiple Z-plasties.[1] Facial anomalies can extend to the widened interclavicular space, bifid or absent manubrium, presternal skin tags, cleft lip and palate, hemifacial microsomia, dermoid cyst of the face, extremity anomalies, and cardiac deformities.[10] Treatment choices for all these anomalies should be determined according to the type of the deformity.

Conclusion

The lower lip notching was corrected with wedge resection and three-layer closure in our patient. No complications occurred. Functional and esthetic results were good in the postoperative

Table 1: Clinical features of the Tessier craniofacial clefts

Tessier classification		
	Synonyms	**Major clinical features of the pathology**
Tessier number 0	Median craniofacial dysraphia Centrofacial microsomia Frontonasal dysplasia Median cleft face syndrome Holoprosencephaly	Deficiency of midline structures Developmental arrest range from hypoplasia of the nasomaxillary region and hypotelorism to a severe cyclopia, ethmocephaly, or cebocephaly False median cleft lip and absence of philtral columns Narrowed columella or totally absence of columella Lack of septal support Skeletal deficiencies range from separation between the upper central canines to absence of the premaxilla and cleft of the secondary palate Partial or total absence of nasal bones and septal cartilages Hypotelorism or cyclopia Encephalocele Excess of midline tissue True median cleft lip with broad philtral columns Duplication of the labial frenulum Bifid nose with a broad columella Laterally displaced alae and upper lateral cartilages Skeletal excess can be seen as a diastema between the upper central incisors Duplicate nasal spine Keel-shaped maxillary alveolus Anterior open bite Shortened central midface height Cartilaginous and bony nasal septum is thickened or duplicated Nasal bones and nasal process of the maxilla are broad, flattened, and displaced laterally Ethmoid and sphenoid sinuses may be enlarged, contributing to symmetric widening of the anterior cranial fossa and hypertelorism Displacement of the pterygoid plates away from the midline
Tessier number 1	Type 3 nasoschisis nasal dysplasia	Soft tissue involvement It is similar to the common cleft lip Notching on soft triangle of the nose Short and broad columella The nasal tip and nasal septum deviate away from the cleft Malpositioned medial canthus, and telecanthus Skeletal involvement A keel-shaped maxilla and anterior open bite An alveolar cleft that passes between the central and lateral incisors The cleft may extend posteriorly as a complete cleft of the hard and soft palate The nasal bones are displaced and flattened Hypertelorism
Tessier number 2	-	Soft tissue involvement Ala nasi is hypoplastic, lateral aspect of nose is flattened and dorsum is broad Cleft passes medially to the palpebral fissure and eyelid is not involved Lacrimal duct is usually intact Skeletal involvement Cleft begins between lateral incisor and canine, extends into apertura piriformis Hard or soft palate cleft can be accompanied with the pathology Cleft passes between nasal bone and frontal process of maxilla Orbital hypertelorism can be occurred Asymmetry of the sphenoid wings and anterior cranial base
Tessier number 3	Oro-naso-ocular cleft	Soft tissue involvement Begins like number 1 and number 2 clefts Nose is shortened at the effected side Cleft extends between medial canthus and lacrimal punctum, lacrimal system is affected Recurrent ductal infection is common Medial canthus is displaced inferiorly, colobomas of lower eyelid are medial to inferior punctum Microphthalmia may occur, eye is malpositioned inferiorly and laterally

Cont'd

Table 1: Cont'd

Tessier classification		
	Synonyms	**Major clinical features of the pathology**
		Skeletal involvement
		This is an oro-naso-ocular cleft characterized by communication of these 3 cavities
		Cleft begins between lateral incisor and canine
		Anterior maxillary arch is flattened
		If the cleft is bilateral, skeletal disruption is significant
		Ethmoid and sphenoid sinuses are narrowed and anterior cranial base is displaced inferiorly
Tessier number 4	Meloschisis	Soft tissue involvement
	Oro-ocular cleft	Begins lateral to the Cupid' s bow, between tubercle and oral commissure
	Orofacial cleft	Orbicularis aris muscle is located laterally to cleft and makes a mass-like appearance
	Medial maxillary dysplasia	Cleft passes lateral to the ala
		Although nose is intact, alar base can be displaced superiorly
		Cleft extends to lower eyelid lateral to inferior lacrimal punctum
		Medial canthus and lacrimal system are intact
		Globe is normal, however microphthalmia or anophthalmia can be seen
		Skeletal involvement
		Alveolar cleft begins between lateral incisor and canine
		Extends lateral to piriform aperture and involves maxillary sinus
		Medial wall of maxillary sinus is intact
		Cleft passes through inferior orbital rim medial to infraorbital foramen
		Globe can prolapse inferiorly due to absence of medial aspect of inferior orbital wall
		Sphenoid body is asymmetric and pterygoid plates are displaced
		Anterior cranial base is unaffected
Tessier number 5	Oculofacial cleft II	Soft tissue involvement
	Morian III cleft	Begins just medial to oral commissure, courses along cheek lateral to alar rim
	Lateral maxillary dysplasia	Terminates in lateral half of lower eyelid
		Globe is normal but microphthalmia can be seen
	Oro-ocular type 2 cleft	Skeletal involvement
		Alveolar cleft begins lateral to canines
		Extends lateral to infraorbital foramen
		Cleft terminates in lateral orbital rim and floor
		Cleft does not affect the inferior orbital fissure
		Maxillary sinus can be hypoplastic
		Vertical orbital dystopia can be seen
		Lateral orbital rim and wall may be thickened; greater sphenoid wing is affected but cranial base is normal
Tessier number 6	Zygomatic-maxillary cleft	Soft tissue involvement
	Maxillozygomatic dysplasia	Can be seen as a hypoplastic soft tissue that begins from orbital commissure and extends to lateral lower eyelid
		Lateral palpebral fissure is pulled down, lateral canthus is displaced inferiorly
		Pathologies can cause severe ectropion of lower eyelid and an antimongoloid appearance
		Colobomas are located on lateral lower eyelid and mark the cephalic end of the cleft
		Skeletal involvement
		Cleft separates zygoma and maxilla via affecting the zygomaticomaxillary suture
		No alveolar cleft but shortened posterior maxilla can cause occlusal tilt
		Choanal atresia is common
		Cleft end in lateral third of the orbital rim and floor
		Connects to inferior orbital fissure
		Zygoma is hypoplastic but zygomatic arc is intact
		Anterior cranial fossa is narrow but sphenoid is normal
Tessier number 7	Temporozygomatic facial cleft	Soft tissue involvement
	Craniofacial microsomia	Cleft begins from oral commissure and extends to preauricular hairline
	Hemifacial microsomia	Pathology can range from a mild broadening of oral commissure with a preauricular skin tag to a complete fissure extending toward the microtic ear
	Otomandibular dysostosis	Cleft does not extend beyond anterior border of masseter muscle
		Ipsilateral tongue, soft palate and muscles and mastication can be affected

Cont'd

Table 1: Cont'd

Tessier classification		
	Synonyms	**Major clinical features of the pathology**
	First and second branchial arch syndrome Auriculo- branchiogenic dysplasia Hemignathia and microtia syndrome Oro-aural cleft Group B1 lateral otocephalic branchiogenic deformity Zygotemporal dysplasia	Parotid gland and duct can be absent Facial nerve weakness may occur External ear absence or microtia or only preauricular skin tag can be seen depending on the level of pathology Middle ear can also be affected Preauricular hair is usually absent in craniofacial microsomia patients Hairy skin between oral commissure and temporal region can be seen in Teacher Collins Syndrome The ipsilateral soft palate and tongue are often hypoplastic Skeletal involvement Skeletal cleft passes through pterygomaxillary junction Cleft is centered in the region of temporozygomatic suture according to Tessier Posterior maxilla and mandibular ramus are vertically hypoplastic and cause abnormal occlusal plane Coronoid process and condyle are often hypoplastic, contributing to a posterior open bite Zygomatic body is hypoplastic and displaced In severe pathology, zygomatic arch represents as a small stump In severe form, true orbital dystopia can occur Zygomatic process of temporal bone is normal Cranial base is asymmetric and glenoid fossa is malpositioned There can be a rudimentary medial and a lateral pterygoid plate Sphenoid bone is usually abnormal
Tessier number 8	Frontozygomatic cleft The equator of the Tessier craniofacial time zones	Soft tissue involvement Cleft extends between lateral canthus and temporal region Hair markers can be seen along a line between temporal area and lateral canthus True lateral commissure coloboma with absence of lateral canthus is seen Epibulbar dermoids are also presented Skeletal involvement Cleft is located at frontozygomatic suture The only support of lateral palpebral fissure is the greater wing of the sphenoid bone There is soft-tissue continuity of the orbit and temporal fossa
Tessier number 9	Frontosphenoid dysplasia	Soft-tissue involvement Lateral third of the upper eyelid and eyebrow are abnormal Lateral canthus is distorted In severe pathology, microphthalmia is presented Superolateral bone defect causes lateral displacement of globe Cleft extends to temporoparietal hair-bearing scalp Temporal hairline is anteriorly displaced, and a temporal hair projection is often seen Nervus facialis palsy in forehead and upper eyelid is common Skeletal involvement Bone defect extends through superolateral aspect of the orbit, involving supraorbital rim and roof Upper part of greater wing of sphenoid, squamous portion of temporal bone, and surrounding parietal bones are distorted Posterolateral rotation of lateral orbital wall can be seen Pterygoid plates are hypoplastic There may be a reduction in anteroposterior dimension of anterior cranial fossa
Tessier number 10	-	Soft tissue involvement Begins at the middle third of upper eyelid and eyebrow Lateral eyebrow may angulate temporally Palpebral fissure may be elongated with an amblyopic eye displaced inferolaterally In severe pathology, entire upper eyelid can be absent Colobomas can be seen Frontal hair projection may connect temporoparietal region to lateral brow Skeletal involvement Begins in the middle of upper orbital rim just lateral to supraorbital foramen A prominent mass can be seen in forehead due to encephalocele Orbit rotated lateroinferiorly In severe disease, hypertelorism can be seen Anterior cranial base is affected

Cont'd

Table 1: Cont'd

Tessier classification		
	Synonyms	**Major clinical features of the pathology**
Tessier number 11	-	Soft tissue involvement Medial third of upper eyelid is affected and upper eyebrow is disrupted Pathology can involve a tongue-like projection of the frontal hairline Skeletal involvement A notch can be seen in the medial third of the supraorbital rim If cleft passes through ethmoid air cells, orbital hypertelorism can be seen Cranial base and sphenoid anatomy are normal
Tessier number 12	-	Soft tissue involvement Cleft lies medial to medial canthus There is a lateral displacement of the canthus that causes telecanthus There is no eyelid clefting Aplasia of medial eyebrow can occur Downward projection of paramedian frontal hairline possible, but forehead skin is normal Skeletal involvement Passes through frontal process of maxilla Transverse dimension of ethmoid cells are increased and orbital hypertelorism occurs Frontal and sphenoid sinuses are usually enlarged Cleft is lateral to olfactory groove, so cribriform plate is normal Encephaloceles have not been observed in this cleft Anterior and middle cranial fossae are widened
Tessier number 13	-	Soft tissue involvement There is typically a paramedian encephalocele located between nasal bone and frontal process of maxilla Upper eyelid and eyebrow are intact Medial end of eyebrow can be displaced inferiorly A V-shaped frontal hair line can be seen Skeletal involvement Anomaly in cribriform plate is characteristic in this cleft There is widening in olfactory groove Cribriform plate and ethmoid sinus are enlarged, thus hypertelorism can be seen A paramedian encephalocele can relocate the cribriform plate inferiorly leading to orbital dystopia
Tessier number 14	Median craniofacial dysraphia	Soft tissue and skeletal tissue deficiency Hypotelorism can be seen A spectrum of holoprosencephalic disorders such as cyclopia, ethmocephaly and cebocephaly may also be seen Cranium is typically microcephalic Cranial base components are absent which causes orbital fusion Soft tissue excess Hypertelorism can also be seen with number 14 cleft Frontonasal encephalocele or a midline frontal encephalocele can cause lateral displacement of the orbits Forebrain remains in a low position during embryologic development Glabella is flattened Periorbita, eyelids and eyebrow are normal Long midline projection of frontal hairline can be seen Skeletal tissue excess Caudal frontal bone is flattened While frontal sinus is nonpneumatized, sphenoid sinus is over-pneumatized Bifid crista galli and perpendicular plate can be seen Crista galli and ethmoid bone are widened and caudally displaced Cribriform plate is displaced inferiorly Relative shortening of middle cranial fossa is caused by rotation of sphenoid wings Harlequin eye deformity can be seen on X-ray

Cont'd

Table 1: Cont'd

Tessier classification		
	Synonyms	**Major clinical features of the pathology**
Tessier number 30	Mandibular process cleft Midline branchiogenic syndrome Intermandibular dysplasia	Soft tissue involvement Pathology can range from a notch in the lower lip to an entire lower lip and chin cleft Anterior tongue can be bifid and attached to split mandible Ankyloglossia and total absence of tongue have also been reported Skeletal involvement Cleft is located between central incisors and extends to mandibular symphysis Anomaly is thought to be caused by failure of fusion of first branchial arch If lower branchial arches are affected, neck anomalies can be included in the pathology Hyoid bone is absent in most cases and thyroid cartilages are underformed Flexion contracture of neck due to atrophia of neck strap muscles

10-month follow-up period. Tessier number 30 cleft should be kept in mind in lower lip anomalies.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Tessier P. Anatomical classification facial, cranio-facial and latero-facial clefts. J Maxillofac Surg 1976;4:69-92.
2. Arshad AR. Incomplete midline cleft of lower lip. Cleft Palate Craniofac J 1995;32:167-9.
3. Morton CD, Jordan HE. Median cleft of lower lip and mandible, cleft sternum and absence of basihyoid: Report of case. Arch Surg 1935;30:647-56.
4. Ozaki W, Kawamoto HK Jr. Craniofacial clefting. In: Lin KY, Ogle RC, Jane JA, editors. Craniofacial Surgery: Science and Surgical Technique. Philadelphia, PA: Saunders; 2002. p. 309-31.
5. Hunt JA, Hobar PC. Common craniofacial anomalies: Facial clefts and encephaloceles. Plast Reconstr Surg 2003;112:606-15.
6. Murray JC. Face facts: Genes, environment, and clefts. Am J Hum Genet 1995;57:227-32.
7. Moore LL, Singer MR, Bradlee ML, Rothman KJ, Milunsky A. A prospective study of the risk of congenital defects associated with maternal obesity and diabetes mellitus. Epidemiology 2000;11:689-94.
8. Kalantar-Hormozi A, Abbaszadeh-Kasbi A, Goravanchi F, Davai NR. Prevalence of rare craniofacial clefts. J Craniofac Surg 2017;28:e467-70.
9. Morian R. About oblique facial clefts. Arch Klin Chir 1887;35:245.
10. Rao AY. Complete midline cleft of lower lip, mandible, tongue, floor of mouth with neck contracture: A Case report and review of literature. Craniomaxillofac Trauma Reconstr 2015;8:363-9.
11. Millard DR Jr., Lehman JA Jr., Deane M, Garst WP. Median cleft of the lower lip and mandible: A case report. Br J Plast Surg 1971;24:391-5.
12. Rosenthal R. Aglossia congenital: Report of a case of the condition combined with other congenital malformations. J Dis Child 1932;44:383-5.
13. Tafreshi M, Aminolsharieh Najafi S, Hasheminejad R, Mirfazeli A, Shafiee A. Tessier number 30 clefts with congenital heart defects. Iran Red Crescent Med J 2015;17:e19078.
14. Ladani P, Sailer HF, Sabnis R. Tessier 30 symphyseal mandibular cleft: Early simultaneous soft and hard tissue correction – A case report. J Craniomaxillofac Surg 2013;41:735-9.
15. Adetayo OA, Martin MC. A unique case of tessier 30 and bilateral cleft lip and palate: A new clinical syndrome? Cleft Palate Craniofac J 2013;50:117-21.
16. Vendramini-Pittoli S, Guion-Almeida ML, Santos JM, Garcia Júnior SM, Yoshida MM, Richieri-Costa A, *et al.* An unusual presentation of oculoauriculovertebral spectrum with a tessier 30 cleft: Report on two cases. Clin Dysmorphol 2015;24:144-50.
17. Ozek C, Gundogan H, Bilkay U, Cankayali R, Guner U, Tokat C, *et al.* A case of total nasal agenesis accompanied by tessier no 30 cleft. Ann Plast Surg 2001;46:663-4.
18. Murrad K, Aldaghri F, Mrad MA. Nasal septal agenesis and attenuated lower and upper lateral cartilages in a 5-year-old child: A Sporadic finding. Eplasty 2016;16:e38.
19. de Jong-Pleij EA, Pistorius LR, Ribbert LS, Breugem CC, Bakker M, Tromp E, *et al.* Premaxillary protrusion assessment by the maxilla-nasion-mandible angle in fetuses with facial clefts. Prenat Diagn 2013;33:354-9.
20. Kargi E, Acun C, Tomaç N, Savranlar A, Dursun A, Babuccu O, *et al.* Midline cleft of the lower lip associated with robinow syndrome. Scand J Plast Reconstr Surg Hand Surg 2004;38:361-4.
21. Raskin S, Souza M, Medeiros MC, Manfron M, Chong E Silva DC. Richieri-costa and Pereira syndrome: Severe phenotype. Am J Med Genet A 2013;161A: 1999-2003.
22. Kavak SB, Celik E, Firat C, Goktolga G, Ilhan R, Orak U. Tessier number 30 cleft: Report of an antenatally diagnosed case. J Perinat Med 2014;3:71-3.
23. Monroe CW. Midline cleft of the lower lip, mandible and tongue with flexion contracture of the neck: case report and review of the literature. Plast Reconstr Surg 1966;38:312-9.
24. Seyhan T, Kılınç H. Tessier Number 30 cleft: A Case Report and Review of Literature. Turk J Plast Surg 1999;7:187-90.
25. Sade Ç, Kuran İ, Arı C, Karasoy A, Baş L. A Case of Number 7 Left Unilateral Neck Cleft According to Tessier Classification. Turk J Plast Surg 2001; 9:37-9.
26. Aköz T, Erdoğan B, Görgü M, Kapucu R, Karaçal N, Kutlay R. A Different Approach on the Treatment of Tessier Number 0 Cleft (Evaluation of Two Cases). Turk J Plast Surg 1996;4:179-84.
27. Okur Mİ, Köse R, Yıldırım AM. Surgical Treatment of Macrostomia in Lateral Facial Clefts. Turk J Plast Surg 2009;17:4-7.
28. Seyhan T, Kilinc H. Median cleft of the lower lip: Report of two new cases and review of the literature. Ann Otol Rhinol Laryngol 2002;111(3 Pt 1):217-21.
29. Monroe CW. Midline cleft of the lower lip, mandible and tongue with flexion contracture of the neck: Case report and review of the literature. Plast Reconstr Surg 1966;38:312-9.

30. Goswami JK. Tessier 30 facial cleft with duplication of tongue. J Indian Assoc Pediatr Surg 2017;22:46-7.
31. Millard DR Jr., Wolfe SA, Berkowitz S. Median cleft of the lower lip and mandible: Correction of the mandibular defect. Br J Plast Surg 1979;32:345-7.
32. Armstrong AP, Waterhouse N. Tessier 30 median mandibular cleft: Case report and literature review. Br J Plast Surg 1996;49:536-8.
33. Oostrom CA, Vermeij-Keers C, Gilbert PM, van der Meulen JC. Median cleft of the lower lip and mandible: Case reports, a new embryologic hypothesis, and subdivision. Plast Reconstr Surg 1996;97:313-20.
34. Sherman JE, Goulian D. The successful one-stage surgical management of a midline cleft of the lower lip, mandible, and tongue. Plast Reconstr Surg 1980;66:756-9.
35. Ishii M, Ishii Y, Moriyama T, Enomoto S, Ono T, Ohyama K, *et al.* Seventeen-year follow-up of a patient with median cleft of the lower lip, mandible, and tongue with flexion contracture: A case report. Cleft Palate Craniofac J 2002;39:555-9.
36. Freitas RS, Cruz GA, Alonso N, Forte AJ, Busato L, Persing J. Tessier number 30 clefts: Surgical correction of a rare malformation. Rev Bras Cir Craniomaxillofac 2010;13:12-7.