



ISSN NO. 2320-5407

Journal homepage: <http://www.journalijar.com>
Journal DOI: [10.21474/IJAR01](https://doi.org/10.21474/IJAR01)

INTERNATIONAL JOURNAL
OF ADVANCED RESEARCH

RESEARCH ARTICLE

Unusual branches of facial Artery.

Dr.Dimple Patel (M.S. Anatomy)¹, Dr Bharat D Trivedi², Dr Mahendra S Patel³, Darshil Sodha⁴.

1. Associate Professor Anatomy, AMC MET Medical College, Maninagar.
2. (M.S. Gen. Surgery, M.S. Anatomy) H O D Anatomy Narsinghbhai Patel Dental College Visnagar, Gujrat India.
3. (M.S.) (E.N.T.) Surgeon , Senior Lecturer , Department Of Anatomy , Narsinghbhai Patel Dental Collage And Hospital , Visnagar.
4. B.D.S. Student N.P.D.C.& Hospital Visnagar

Manuscript Info

Manuscript History:

Received: 12 February 2016
Final Accepted: 25 March 2016
Published Online: April 2016

Key words:

Anesthetic Artery , Facial Artery
unilateral abnormal Branches.

*Corresponding Author

Dr.Dimple Patel.

Abstract

The Present Study to observe the variations in branching of facial artery. The aim of study was to make clinician academically wiser and practically more competent while dealing with these anomalies branches during surgery and other interventional procedures. Bilateral head and neck dissection of formalin preserved middle aged Indian female cadaver was done for routine teaching and simultaneously observations regarding the branching pattern of facial artery though rare is of great academic and clinical significance in general practice. Otorhinology , traumatology , plastic and maxilla- facial surgery . the anomalies should be kept in mind and given due honour while operating and intervening in the region of face for emergency management of injuries. Correction of congenital anomalies and while performing other general and specialized procedures in this region.

Copy Right, IJAR, 2016,. All rights reserved.

Introduction:-

The Main Artery Supply to the face is derived from the facial and superficial temporal arteries blood is also supplied by branches of the maxillary and ophthalmic arteries. facial artery arrives in the neck from the third anterior branch of external carotid artery. It arrives immediately above the origin of lingual artery and ends at the medial angle of the eye After the tortuous. It lies deep to the posterior belly of the digastric and stylohyoid muscle separated from palatine tonsil only by the superior constrictor muscle. just above stylohyoid it enter a groove in a sub mandibular gland and runs downwards between the lateral surface of the gland and medial pterygoid muscle to the lower border of the mandible. Turning round lower border of the bone it enters the face at the antero- inferior Angle of masseter where it pulsation can be felt . Hence it passes sinuously towards the angle of the mouth giving of labial branches 1.0 to 1.5cm from the angle of the mouth and ascends more vertically to the medial angle of the eye.

It is superficial and at first and lies beneath the Platysma. It is covered by skin, the fat of the cheek and near the angle of mouth by Zygomaticus major and risorius. It pursues a tortuous course that presumably allows it to stretch when the face is distorted during jaw opening by the side of the nose towards the medial corner of the mouth. Occasionally, the facial artery barely extends beyond the angle of the mouth, in which case its normal territory beyond this region is taken over by an enlarged transverse facial branch from the superficial temporal artery and the branches from contra-lateral facial artery. The facial artery being the chief artery of the face supplies branches to the adjacent muscles and the skin of the face. The facial artery may be tortuous or fairly straight, but in any event the course of facial vessels is an oblique one part the corner of the mouth and alongside of the nose. Its named branches on the face are premassetric artery, the inferior and superior labial arteries and the lateral nasal artery. The sub mental artery arises from the facial artery at the lower border of the body of mandible. It supplies the skin of the chin and lower lip and the part of the artery distal to its terminal branch is called angular artery.

Premassetric artery is a small in constants branch , it passes upwards along the anterior border of masseter and supplies the adjacent tissue. Before the artery reaches the corner of the lip, it gives off inferior labial artery that runs medially in the lower lip and anastomoses with its fellow of the opposite side, this artery may be double . It next gives off superior labial artery to the upper lip. The superior labial artery being larger and more tortuous than inferior labial artery. It anastomoses with its fellow of the opposite side and supplies the upper lip. It gives off a septal branch which ramifies antero-inferiorly in the nasal septum and also gives an alar branch. This septal branch anastomoses with septal branches of nasopalatine and anterior ethmoidal arteries. Thereafter, it runs along the side of the nose towards the medial angle of the eye as the angular artery. Instead of ending up by breaking into small branches, the angular artery may anastomose with a terminal branch of ophthalmic artery (dorsalis nasi) that leaves the orbit and runs downwards to supply the nose. Lateral nasal artery is given off by the side of nose. Sometimes the angular artery is very poorly developed or absent. It supplies dorsum and ala of the nose and anastomoses with its fellow of the opposite side. It may be replaced by a branch of the superior labial artery.

The facial artery also anastomoses with transverse facial artery . Thus there is a very extensive network of anastomoses between the terminal branches of external and internal carotid artery of one side with their counterparts of the other side. This is the reason why wounds of face bleed profusely, heal quickly and need manipulation of vessels on both sides of the face to stop bleeding .There are numerous communications between the branches of facial artery and other arteries of the face, hence compressing the facial artery against the mandible on one side does not stop all bleeding. Because the branches of the external carotid artery anastomose so freely with each other and with those of external carotid artery on the other side, one external carotid artery can be clamped in order to minimize bleeding and thus facilitate extensive surgery on one side of the face.

Materials and methods:-

The present study was carried out in the Department of Anatomy Narsinghbhai Patel Dental collage and hospital Visnagar India during routine dissection of a formalin preserved middle aged Indian female cadaver for undergraduate Anatomic teaching and recording observations. Bilateral dissection of head and neck was done was done carefully and observed for variations in the branching pattern of facial artery.

Case Report:-

During routine dissection of old aged Indian Female cadaver. We observer that Right Facial Artery Originated from External Carotid Artery just above the lingual artery as usual After crossing the anterior inferior angle of the masseter it gave the terminal branches , inferior labial artery and main trunk and unnamed posterior branches from main trunk and premasetric artery . This anomalies branches pass upwards and medially towards the medial angle of the eye, divided into three small terminal branches which anastomosis with terminal branches of infra-orbital arteries and transverse facial artery shown in figure 1.The Superior Labial , lateral Nasal and angular branch present in the right , where relatively small size then their counter part in left side. The premasetric branch was present on the face in this cadaver. On the left side facial artery is normal.

Discussion:-

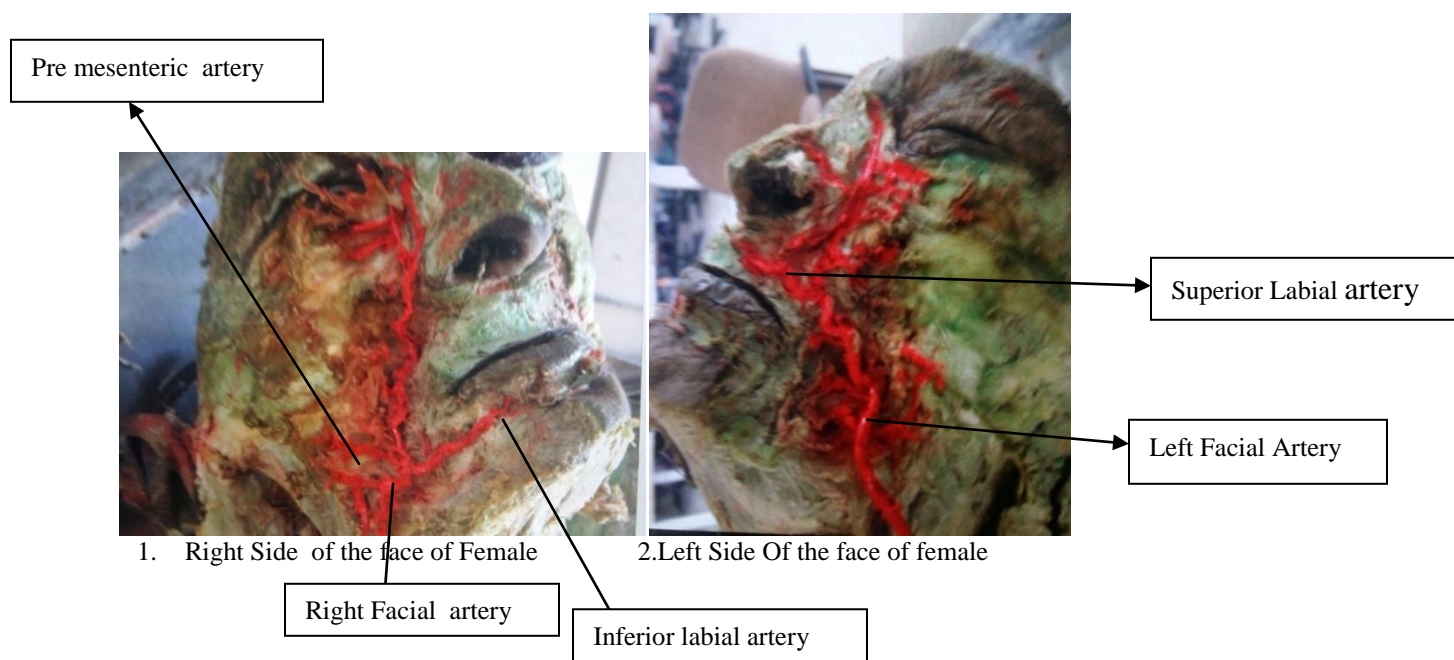
There are available reports in the literature related to the variable origin, course and branching pattern of facial artery The facial artery origin from external carotid artery. The course of facial artery is divided in to two part cervical and the facial. The facial artery is tortuous throght its extent. The anesthetic often feel the facial pulse for monitories the patient during surgery

The usual branches of facial artery in the face are inferior labial, superior labial , dorsal nasal and angular artery. The premasetric branch also find its limited description is the available literature. In old aged female cadavers we found that right facial artery taking origin from external carotid artery. Make loop in the submandibular region entered the face and terminates as inferior labial artery and Angular artery. The left superior labial artery larger and more tortuous than right superior labial artery .The left inferior labial artery is small. It anastomosis with its fellow of opposite sides and Right inferior labial artery terminated at angle of mouth from the main trunk of facial artery. Angular artery arrives near angle of mouth , terminal branched are very small. It is more tortuous larger than left inferior labial artery. The facial vein lies behind the facial artery and takes a straighter and more superficial course across the face then the artery.

The knowledge about this anomalies branches pattern of facial artery is very essential for general practitioner traumatologists who receive profuse bleeding, facial injuries for first aid and specialist management respectively. Maxillofacial and plastic surgeon should also give due honour to there anomalies before deciding about graft and other surgical intervention in this region. Thus it is very important for general surgical practitioners and specialists to know about this anomalous branches pattern of facial artery efficient management of injuries,

Summary and conclusion:-

The main arterial supply of face comes from facial artery. The variations in the branching pattern of this important vessels through rare are of immense academic and clinical significance in general practice traumatology. Maxillofacial and plastic surgery. This rare anomalous branches of right facial artery reported by us does not find its description in the available literature. It should be kept in mind and given due recognition and respect in academics and general surgical practice. During specialized and super specialized surgical investigations of facial artery a sound knowledge of this variation can change the surgical outcome and external appearance of a patient in cosmetic surgery. Correction of congenital anomalies like cleft lip cleft palate and while dealing with other pathologies of maxillofacial region.



References:-

1. G.R. ROMANES, Cunningham's Textbook of Anatomy, Twelfth edition, OXFORD UNIVERSITY
2. Standring S. Gray's Anatomy The anatomical basis of clinical practice. 39th edition Edinburg Elsevier Churchill
3. Hollinshed's Textbook of Anatomy, fifth Edition. Lippincott
4. Keith L. MOORE, Clinically oriented ANATOMY, WILLIAMS
5. RICHARD S. SNELL
6. Clinical Anatomy. LIPPINCOTT
7. WILLIAM'S WILKINS, 7th edition
8. Neeta V Kulkarni, CLINICAL ANATOMY
9. (A Problem Solving approach),
10. Japee brothers, New delhi, second edition,
11. Anne M. R. Agur, Grants ATLAS OF ANATOMY, Williams & Wilkins, London, Ninth edition
12. Marx C et al, Bilateral variations of facial artery, a case report, Rom J morphol Embryol
13. Vikram Singh ... Anatomy Head And Neck
14. Atlas Of Anatomy Second Edition
15. A.K. Dutta Anatomy Fifth Edition