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Original Article

Variant Origin Of Lingual Artery From Facial Artery- A Case Report

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ABSTRACT

Aim: The knowledge of the variations of the arterial supply of the tongue is essential in various surgeries of tongue, dental procedures and in radiological investigations of the oral region. Methods: Here, we report a rare case of absence of lingual artery on right side of neck in a male cadaver of about 50 years in routine educational dissection of I M.B.B.S students in department of anatomy, Siddhartha medical college. Results: The lingual artery arose from the terminal part of facial artery on right side. The origin and course of lingual artery was normal on left side. Conclusion: This rare variation of absence of lingual artery is correlated with the previous studies.

Introduction

Lingual artery is the principal artery of the tongue and arises from the front of external carotid artery opposite the tip of greater cornu of hyoid bone in carotid triangle. The course of the lingual artery is divided into three parts by the hyoglossus muscle. The first part extends from its origin to the posterior border of hyoglossus and the second part passes deep to the hyoglossus and the third part ascends along the anterior border of hyoglossus and then runs forward beneath the mucous membrane of tongue on each side of frenulum linguae. Facial artery arises from the front of external carotid just above the tip of greater cornu of hyoid bone. The course of the artery is divided into two parts, cervical and facial. The cervical part gives the tonsillar branch and branches to submandibular gland and also the submental artery. [1]

CASE REPORT

We describe a rare variation of lingual artery from facial artery in a male cadaver of about 50 years of Asian origin during routine educational dissection in our department of anatomy. In the cadaver on the right side, the bifurcation of common carotid artery was at a higher level at the level of body of hyoid bone. The superior thyroid artery was from common carotid artery just below carotid bifurcation. There was no lingual artery opposite to looping of hypoglossal nerve. Above the greater cornu of hyoid bone, 1.3cm superior to the origin of superior thyroid artery, the facial artery with the looped pattern was observed. The artery was running in relation to the lateral surface of the submandibular gland and gave the ascending palatine branch and also the glandular branches. Then the artery was dividing into two branches (fig.1) - one branch entering the face at the anterior border of masseter as the facial part of facial artery and the facial artery ended as superior labial artery on that side. And another branch-the lingual artery was running superficial to hyoglossus and entered the genioglossus and this branch gave the submental artery. The origin and topography of lingual artery was normal on left side of the same cadaver.

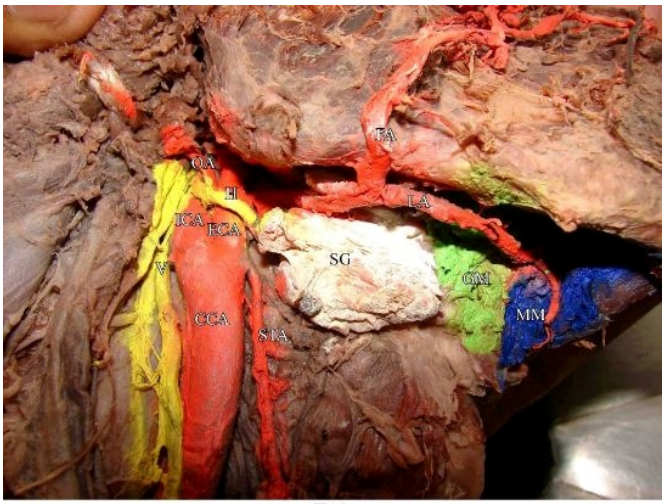

Fig .1

CCA: Common carotid artery
ECA: External carotid artery
ICA: Internal carotid artery
STA: Superior thyroid artery
LA: Lingual artery
FA: Facial artery
SG: Submandibular gland
H: Hypoglossal nerve
OA: Occipital artery
V: Vagus nerve
GM: Genioglossus muscle
MM Mylo hyoid muscle

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DISCUSSION

The combined trunks of lingual and facial trunks or lingual and superior thyroid artery occur frequently. [2, 3, 4] Lingual artery sometimes branches from facial artery and it may give the submental branch of facial artery. [5] But the lingual artery arising from facial artery is rarely reported. The haemorrhage caused by a lesion of the lingual artery can occur during a dental procedure by trauma, biopsy and dental implant. Since the intraoral ligature of the lingual artery is not always an easy procedure, the extra oral ligature of this artery becomes very important when it is necessary. [6, 7] The knowledge of this type of variant origin of lingual artery from facial artery is important in procedures such as extra oral ligature of lingual artery.

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