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Third Head of Biceps Brachii in a Female Cadaver – A Case Report.

Dr.Ashwini M Mutalik Asssociate Professor, Dept Of Anatomy, S.Nijalingappa Medical College, BAGALKOT

ABSTRACT

Supernumerary heads of biceps brachii are very common. We encountered supernumerary head of bicep brachii in a female cadaver during routine dissection. It originated from the tip of coracoids process by a thin tendinous form and medial to the main bicep brachii muscle and got inserted into the medial intermuscular septum and medial epicondyle. Such variations may cause compression of neuro vascular structures hence these facts are not only important to anatomist but also for orthopedic and plastic surgeons.

INTRODUCTION

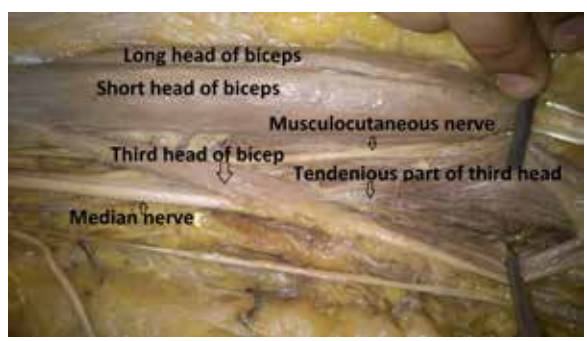
As implied by its name Bicep brachii typically arises by two heads - the long head which is intracapsular arises from the supraglenoid tubercal by means of a long tendon and then passes between the two humeral tubercals where it is held in place by weak transverse humeral ligament and is crosses anteriorly by tendon of pectoralis major. The short head is also tendenous at its origin and arises with the coracobrachialis from the tip of coracoid process[1]. Biceps brachii gets inserted into ways – the tendon of bicep brachii passes deeply between flexor and extensor muscles into the cubital fosssa and attaches to the posterior part of tuberosity ulna while the aponeurotic part which arises from the lower medial border of tendon joins the antebrachial fascia.

CASE REPORT

In the present study we have found a third head of biceps brachii in a female cadaver on left side. The long and short head of biceps brachii originated as usual but the third head took tendenous origin from the tip of the corcoid process along with short head and ran downwards medial to the short head. Musculocutaneous nerve was found below the third head. There was a main branch from the musulocutaneous nerve that divided into three twigs to supply long, short and third head of biceps brachii. In the upper part of the arm, median nerve and brachial artery was found to lie medial to this third head while in the lower part of the arm the third head covered the median nerve and brachial artery. Further the long and the short head inserted in a normal way while the third head became tendenous in the lower part and mingled with the medial intermuscular septum and antebrachial fascia.

DISCUSSION

Most common anomaly of biceps brachii is the presence of three or more heads. Many studies have been reported regarding the supernumerary heads of biceps brachii. In a study conducted by Ramakrishna Avadani on 48 arms, 16.67% of three headed biceps brachii were noted on the left side 2. Another study of Muktyaz Hussein reported third head of biceps brachii originating from pectoralis major muscle's tendon3. An accessory head of biceps brachii overlying the brachialis muscle originated from anteromedial surface of humeral shaft and inserted along the common bicep tendon was also reported by Nuket Mas 4. Baris Ozgur conducted a study where supernumerary head of biceps brachii were found to arise from medial and lateral lips of intertubercular groove 5. The supernumerary head of biceps brachii and long head originating from deltoid and pectoralis major muscles are also reported by Nayak and Krishnamurthy 6. A study was conducted on 350 arms by Rodriguez and the supernumerary heads of biceps brachii were classified into 3 different types as Superior, Inferomedial and Inferolateral humeral head 7. According to Testut, the embryological reason for such supernumerary heads could be due to musculocutaneous nerve piercing the brachalis muscle or because of translocated insertion of brachalis muscle from ulna to radius. This supports the hypothesis of functional adaptation 8.



CONCLUSION

Muscular system in man is subjected to multiple variations. Knowledge of such variations is important as these supernumerary heads may cause neuro vascular compression, they may give additional strength to the muscle and they are of more value to surgeons who are involved in performing flap and plastic surgeries. Hence the knowledge of supernumerary is important to prevent erroneous interpretations during surgical procedures.

REFERENCE

1. Hollinshead WH(1982) Anatomy for Surgeons.The Back and Limbs, Vol 3.Harper & Row, Philadelphia. | 2. Ramakrishna Avadani, K Kalyan Chakrabvarthi. A study on Morphology of the Biceps Brachii muscle. NUJHS Vol 2, No. 3, September 2012 , ISSN 2249 – 7110 | 3. Muktyaz Hussein, Arun Kr. Sharma, Birendra Yadav, Mahboobul Haque. Third head of Biceps Brachii Muscle: A rare case report. National Journal Of Medical and Allied Sciences 2013; 2(1):55-59. EISSN:2319-6335. | 4. Nuket Mas, Can Pelin, Ragiba Zagyapan & Hakan Bahar.Unusual relation of median nerve with the accessory head of the Biceps Brachii muscle: An Original Case Report. Int.J.Morphol. Vol.24 No.4 Temuco 2006 | 5. Baris Ozgur Donmez, Bahadir Murat Demirel, Umut Ozsoy, Arzu Utuk, Levent Sarikcioglu. Variation of the supernumerary head of the biceps brachii muscle: Two case reports and literature review. International Journal of Experimental and Clinical Anatomy – Published online: January 25, 2010. | 6. Nayak SR, Krishnamurthy A. An Unusual supernumerary head of Biceps Brachii muscle.Clin Anat 2008; 21:788-9. | 7. Rodriguez-Niedenfuhr N, Vazque T, Choi D, and Parkin Sanudo JR: Supernumerary humeral heads of biceps brachii muscle revisited. Clinical Anatomy, 2003; 16(3):197-203. | 8. Vinnakota Sunitha, Bhattom Narasingarao. Bilateral three headed biceps brachii: A case Report.Peoples Journal of Scientific research.2011 July Vol – 4(2),53 – 54. | |