

FORMATION AND BRANCHING PATTERN OF CORDS OF BRACHIAL PLEXUS- A CADAVERIC STUDY IN NORTH INDIAN POPULATION

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ABSTRACT

BACKGROUND: The anatomical variations in the different parts of brachial plexus in human have been described by many authors. These variations have clinical significance for the surgeons, radiologists and the anatomists. A lot of work has been done on the morphology of branching pattern of the different cords of brachial plexus but almost all the workers are silent about their morphometry. That's why this study is planned on morphology & morphometry of branching pattern of different cords of brachial plexus.

MATERIAL AND METHODS: The present study was conducted on 60 upper limbs belonging to 30 cadavers (Male:Female = 28:02), (Right:Left = 30:30) obtained from Department of Anatomy, Govt. Medical College, Amritsar. These were dissected to expose the different components of brachial plexus.

OBSERVATIONS: Out of 60 limbs, the lateral and the medial cords were formed in the usual way in 56 limbs, while the posterior cord was normal in 57 limbs. The average lengths of lateral, medial & posterior cords were 3.37 cm, 4.05 cm & 1.95 cm respectively. The branches of lateral cord depicted more variations in the form of origin as compared with those of medial & posterior cords. The distance of different branches of all the cords from the point of origin to parent cord varied between the two sides of same cadaver as well as on the same side of different cadavers.

DISCUSSION & CONCLUSION: The present study on the adult human cadavers is an essential prerequisite for the initial built up of the data base at the grass root level. The anatomy has always provided a bedrock for the sound surgical endeavors. It definitely has an upper edge to widely and indiscriminately used radiological and sophisticated CT and MRI observations which carry a margin of error inherent to any diagnostic procedure because no doubt the machines are a good bet but the eyes see the best.

KEYWORDS: Brachial plexus; Lateral cord; Medial cord; Posterior cord.

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BACKGROUND

Brachial plexus is a network of nerves supplying the upper limb with the root value C5-T1. These roots join with each other to form three trunks viz; the upper, middle and lower by union of C5, C6; continuation of C7 and union of the C8 and T1 respectively. The three trunks bifurcate into anterior and posterior divisions. The anterior divisions of upper and the middle trunks

unite to form the lateral cord, that of the lower trunk continues as the medial cord and the posterior divisions of all the three trunks unite to form the posterior cord. These cords give rise to different nerves for the upper limb. The lateral cord gives lateral pectoral nerve, lateral root of the median nerve and the musculocutaneous nerve, the medial cord gives medial pectoral nerve, medial cutaneous nerve of the arm,