Variation in brachial plexus formation, branching pattern and relation with major vessels

Gulam Anwer Khan1, Deepak Kafle1, Shekhar K Yadav1, Om Shrestha1, Arun Dhakal1, Sudeep K Yadav1 and Ranjit Guha2

1Chitwan Medical College, Nepal
2College of Medical Sciences, Bharatpur, Nepal

Background: Anatomical variations in the formation, branching pattern and relations of the brachial plexus have been described in humans by many authors; however these have not been extensively catalogued. The aim of the study was to describe variations in brachial plexus formation, branching pattern and relation with major vessels.

Methods: This study included thorough dissection of 60 brachial plexuses which belonged to 30 cadavers (male: female ratio = 28:02) with age range of 20-60 years, obtained from the Department of Anatomy, College of Medical Sciences (CMS-TH), following standard guidelines.

Results: Out of 60 limbs dissected in present study, the variation in formation was found in 20 limbs (33.3%), out of which 12 limbs (20%) had variations in the trunk and 8 limbs (13.3%) had variations in the cord, remaining 40 limbs (66.6%) were normal in the formation of brachial plexus. Normal branching pattern of the posterior cord was encountered in 52 (86.67%) limbs, the remaining 8 (13.33%) being variants in one form or the other. The upper subscapular nerve, the thoracodorsal nerve, the lower subscapular nerve and the axillary nerve were found to arise normally in 91.66%, 96.66%, 96.66% and 98.33% of the limbs respectively.

Conclusion: The present study carried out on adult human cadavers revealed some rare variations in the formation, branching pattern and relations of the brachial plexus. These variations are of clinical significance for the surgeons, radiologists and the anesthesiologists.

Biography
Gulam Anwer Khan is a Assistant Professor working as Clinical Anatomist, Researcher, and Lecturer since 2012 in Chitwan Medical College, CMC, Nepal. He obtained his MBBS degree from Islamia University, and MS Clinical Anatomy from Kathmandu University Nepal. He has five years of experience in human anatomy specially teaching gross anatomy, histology, embryology, neuroanatomy, practical class, dissection, problem based learning PBL, traditional system, e-learning and health professions education for different undergraduate and post graduate programs (MBBS/BDS/Nursing/Pharmacy/Public Health/Laboratory Medicine). He is active life time member of Anatomy Society of India ASI and Society of Clinical Anatomist of India SOCA. He attended many conferences and is very keen to pursue research in anatomy. He has few publications in international journals. His recent original first author publication on “Variation in brachial plexus formation, branching pattern and relation with major vessels” has been published Int J Res Med Sci.

aanwer227@gmail.com

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