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**Original article:**

**Study of Anatomical Variations in Adult Human Scapulae**

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**Abstract:**

**Background-** Different Shapes of acromion process is clinically important as in impingement syndrome and rotator cuff tear. Variations in the shape of glenoid cavity is of paramount importance in designing and fitting glenoid component for total shoulder arthroplasty and shoulder joint replacement therapy. Anatomical variations of suprascapular notch is similarly helpful in arthroscopic procedure related to suprascapular nerve entrapment.

**Objectives-** To find out anatomical variations of acromion process, glenoid cavity and suprascapular notches.Material & **Method-** Present study was conducted on 105 scapulae. Various morphological types of acromion process, different shapes of glenoid cavity, suprascapular notch were observed and studied.

 **Results-** **1.** Morphological types of acromion process found to be; type I (flat)- 43 (40.95 %), type II (curved)- 51 ( 48.57 %), type III (hooked)- 11 (10.47 %). **2.** Various shapes of glenoid cavity determined as; pear, oval and inverted comma. **3.** Five different types of suprascapular notch were noted, commonest being Type III- 47 (44.76%).

**Conclusion-** Morphological types of acromion process are helpful for orthopaedic surgeon as well as for anthropologists in surgical repair of shoulder joint and in evaluation of bipedal gait respectively. The different shapes of glenoid cavity are helpful in designing and fitting glenoid prostheses. Study of variations in suprascapular notch helpful for clinicians in case of diagnosis and treatment of suprascapular nerve entrapment.

**Key-words:** Acromion process, glenoid cavity, suprascapular notch, anatomical variations.