Purpose of this study was to find the association between shoulder impingement syndrome (SIS) and morphological characteristics of acromion (acromial tilt angle, type of acromion, subacromial osteophyte). Supraspinatus outlet view was performed using fluoroscopy. There were 40 SIS patients and 40 individuals with no shoulder pain examined and measured for their acromial tilt angle, type of acromion (according to Bigliani's classification and Park's criteria) and for the presence of subacromial osteophyte. Average acromial tilt angle was 34.1 ° (SD 7.6) for SIS group and 32.1 ° (SD 7.7) for control group. Type II acromion was found more frequent in both groups (85% and 95%). The association between SIS and acromial tilt angle or between SIS and type of acromion were statistically insignificant (p=0.241 and p=0.221). Subacromial osteophyte was found in 52.5% of SIS group compared to 12.5% among the control group, and the association with SIS was statistically significant (p=0.0003). Subacromial osteophyte was found to have significant association with SIS. Such association was not found in acromial tilt angle and type of acromion.

Keywords: shoulder impingement syndrome, acromion, supraspinatus