**Original article**

**Study of patterns of talar articular facets of human calcanei and their clinical implications in population of Rajasthan**
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**Abstract:**

**Introduction:** There are three facets over upper side of talocalcaneal joint: anterior talar facet, middle and posterior. There is considerable variations in the number and arrangement of these facets. Present study was done to determine patterns of the talar facets of calcanei & their clinical implications in the population of Rajasthan and to find out association of patterns of the talar facets of calcanei with racial factors, if any.

**Materials & methods:** 310 adult dry calcaneal bones at SMS Medical College, Jaipur (Rajasthan) were studied. Each calcaneum was carefully examined for various patterns of articulating facets for talus. Where the anterior and middle facets were separated from each other (Pattern II), the distance between the two was measured.

**Results:** Pattern I with fused middle & anterior facets was predominant- found in 72.26%, followed by Pattern II in 24.52% of the bones. Pattern III, IV and V were found in 1.3%, 1.6% and 0.32% respectively. Subtypes in Pattern II:Subtype A with middle and anterior facet separation of (<2mm)-4.8%, Subtype B (2-5mm)-7.7%, Subtype C (>5 mm)-8.1%.

**Conclusion:** The articular facets of subtalar joint on calcanei show racial and individual differences. Study population may be at greater risk of developing subtalar arthritis due to predominant pattern I calcanei as compared to the Europeans who present pattern II commonly. This fact necessitates modifications of the western surgical techniques to suit the Indian scenario especially for orthopaedic surgeons in India when they perform calcaneal osteotomy.

**Key words:** Calcaneum, Articular facets, Pattern, Variation, Subtalar joint.