A Comparison Study of Ankle Mortise and Saltzman Views

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No Conflict to Disclose

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My disclosure is in the Final AOFAS Mobile App. I have no potential conflicts with this presentation.
Results

**Purpose**

- This project studied retrospective radiographic images of AP Ankle and Saltzman views in order to determine a comprehensive comparison between the two projections.
- Patient sets were accessed via the UTMB PACS system, and the tibiocalcaneal alignment angle was measured using the PACS system software.
- **AP Ankle view**: the angle was taken between the weight bearing axis of the tibia and the long axis of the calcaneus as seen on the calcaneal shadow.

**Saltzman view**: the angle was taken between the weight bearing axis of the tibia and the long axis of the calcaneus from the heel contact point (lowest point).

**Background**

- Accurate evaluation of the alignment of the calcaneus relative to the tibia in the coronal plane is essential in the diagnostic evaluation and clinical treatment of hindfoot pathologic conditions.
- The Saltzman view on X-ray radiography is the most studied method used to observe the tibiocalcaneal alignment; however, it is commonly used in conjunction with the standard AP Ankle view.
- No previous studies have analyzed the utility of the AP Ankle view versus the Saltzman view.
- The camera placement needed to obtain the Saltzman view is less than optimal for analyzing the true alignment angle between the tibia and calcaneus in the coronal plane.

**Methods**

- Statistical Significance: Paired T-test reveals no difference between AP Ankle and Saltzman views on tibiocalcaneal alignment measurement, with p=0.88

**Conclusions**

- The Saltzman view is not necessary to evaluate the angular alignment between the tibia and calcaneus on radiograph, thus radiation exposure and cost expenses can be reduced for orthopedic patients.
- Limitations: Image quality and contrast on AP Ankle view
- Further Studies: Oblique Ankle views compatibility for evaluating tibiocalcaneal alignment

**References**

- Limited availability of studies on AP Ankle view.

**Contact Us**

Please contact Candace Bailey (cabanile@utmb.edu) or Dr. Vinod Panchbhavi (vkpanchb@utmb.edu) for more info.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2939352/.

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