**Short Term Clinical and Radiographic Results of the Salto Mobile Version Ankle Prosthesis**  
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**Introduction/Purpose:** Total ankle arthroplasty (TAA) has become an increasingly attractive option for advanced tibiotalar arthritis treatment. The Salto prosthesis (Tornier SA, Saint Ismier, France) was reported to have midterm and long term promising outcomes. However, to date, the clinical reports of this prosthesis are few and most of the papers were published by the inventors and disclosed consultants. The published areas are also limited to Europe, and no results were documented from other region.

**Methods:** We retrospectively reviewed 62 patients in total. All of underwent unilateral Salto TAA. The average clinical follow-up was 34.3 months. Clinical and radiologic results were evaluated and enrolled. Clinical follow-up included medical records review, visual analogue scale (VAS) pain score, American Orthopeadic Foot and Ankle Society (AOFAS) ankle-hindfoot score, Ankle Osteoarthritis Scale (AOS) pain and disability score and range of motion (ROM). Apart from these, subsequent surgeries and perioperative events that occurred at the first 3 months after the operation were recorded simultaneously. In the radiographic evaluation, we measured the tibial angle (TA), talar angle (TAL), tibial slope, and talocalcaneal angle (TCA) described by Bonnin. Distributive regions of osteolysis and radioluency were reviewed. In addition, heterotopic ossification also be observed and graded. Endpoint of the follow-up was either any component removal or reoperation for any reason.

**Results:** Date to last follow-up, the survival rate with any reoperation as the endpoint was 88.7% (7/62). Using any component removal as the endpoint of followup, the survival rate was 95.2% (3/62). The mean VAS score, AOFAS ankle-hindfoot score, and AOS pain and disability score were improved postoperatively (p < 0.001). Postoperative ROM of ankle was also improved (p = 0.003). Within 6 weeks of postoperation, radiolucent line arose around tibial implant in 39 cases and disappeared at mean 5.5 ± 2.6 months. 28 patients with postoperative mean 8.5 ± 4.5 months appeared radiolucent area. Osteolysis was found in 28 patients with mean 18.1 ± 8.2 months postoperatively. 13 patients suffered heterotopic ossification which appeared 9.4 ± 4.3 months after operation.

**Conclusion:** At the last followup, obvious pain relief and satisfactory results were achieved in most of the patients. Different from previous studies on Salto prosthesis, we considered that the early radiolucent line around the tibial implant is likely due to the tiny gap between the implant and bone contacted interface, and it would disappear at the time of osseous integration. The lucent area and osteolysis occurred frequently around the tibial keel and tray due to the stress shielding of the tibial component. However, longer follow-up is necessary to determine the durability of this implant.

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