

## Oral Abstracts

### Key Session 5

#### [O53] USING PERFORATOR FLAPS TO COVER DEFECTS WITH CHRONIC OSTEOMYELITIS

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Treatment of chronic osteomyelitis involves aggressive debridement followed by robust soft tissue coverage. The dictum of muscle coverage being superior has been challenged by successful reports of coverage with skin flaps. The objective of this paper is to evaluate the efficacy of perforator flaps for reconstruction of chronic osteomyelitis defects.

A retrospective review of 120 patients with chronic osteomyelitis who underwent surgical debridement and reconstruction from April 2000 to November 2015 was done. Inclusion criteria were cases with chronic osteomyelitis for a minimum period of 6 weeks and with a follow up of at least one year after surgery. The correlation between recurrence and the following factors were analyzed: comorbidities, etiology, location of chronic osteomyelitis, duration of chronic osteomyelitis, chronic osteomyelitis grade (Cierny-Mader), limb vascular status, flap composition and orthopedic intervention. The outcomes analyzed were: flap loss, recurrence rate, primary remission rate, secondary remission rate and amputation rate.

There were total of 4% flap loss, 10% recurrence rate, 90% primary remission rate, 98% secondary remission rate and 1% amputation rate. Significant predictors of recurrence were major vessel compromise and patients with external fixator stabilization ( $p < 0.05$ ).

The perforator flap is able to achieve 90% primary remission rate and 98% secondary remission rate in the treatment of chronic osteomyelitis patients. The use of perforator flap is equivalent to the traditional muscle flap in effectiveness.