Management of Hepple Stage V Osteochondral Lesion of Talus with Platelet-Rich Plasma (PRP) Scaffold
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Introduction/Purpose: There is no consensus on treatment or prognosis for Hepple stage V Osteochondral lesion of talus (OLTs), especially for lesion more than 1.5 cm². This research was to investigate surgical techniques and clinical outcomes of platelet-rich plasma (PRP) scaffold for Hepple stage V OLTs.

Methods: 14 patients were treated by cancellous bone graft with PRP gel scaffold between 2013 and 2015 with average age of 38.9 years old and mean set of 23.5 months. Ankle X-ray and MRI were obtained at the final follow-up for evaluation. Functional outcomes were scored by the Visual Analog Scale (VAS) score, American Orthopaedics Foot and Ankle Society (AOFAS) ankle-hindfoot score and Short Form (36) Survey score (SF-36). Range of motion (ROM) of ankle joint and complications were also recorded.

Results: 13 patients got the final follow-up with a mean duration of 18 months. MRI showed complete regeneration of subchondral bone and cartilage in all patients. The post-operative VAS, AOFAS ankle-hindfoot score and SF-36 score improved significantly (P<0.0001) without obvious complications.

Conclusion: We suggest that for the patients of Hepple stage V OLTs, cancellous bone graft with PRP scaffold may be a safe and effective treatment.

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