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## Surgical treatment strategy for diabetic forefoot osteomyelitis

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The aim of this study was to propose an appropriate surgical treatment for diabetic forefoot osteomyelitis (DFO) involving ischemia or moderate to severe soft tissue infection. The records of 28 patients with osteomyelitis from 2009-2015 were retrospectively studied. All patients had undergone surgery based on pre-operative magnetic resonance imaging (MRI) examinations and histopathological or culture analyses confirming the surgical bone margin. The appropriate surgical margin, crucial factors for early healing, and the prognosis after complete resection of osteomyelitis (32-1910 days, median 546 days) were examined. The healing rate of non-ischemic cases of DFO with negative surgical margins was 100% and that of ischemic cases of DFO was 84.6%; the ambulatory rates of both were 100%. No recurrence was observed. Six patients (21.4%) developed new 9 lesions of DFO during the follow-up: 8 due to vascular stenosis and 1 due to biomechanical changes in the foot. After complete resection of osteomyelitis, pre- and post-operative C-reactive protein (CRP) levels and the size of the ulcer were significant predictors of early healing ( $p < 0.05$ , 0.01 and 0.05). The appropriate surgical margin should be set in the area of bone marrow edema, based on MRI examinations after revascularization. In cases with high pre- or post-operative CRP levels, long-term antibiotic therapy is recommended, and surgery should be planned after the CRP levels decrease, except in emergencies.

## Biography

Fujii M has graduated from Kanazawa University Graduate School of Medicine, Japan in 2000 and has completed PhD from Kobe University Graduate school of Medicine, Japan in 2008. She is the Director of Plastic and Reconstructive surgery and Critical Limb Ischemia Center of Kitaharima Medical Center. She is a Member of Association of Diabetic Foot Surgeons and also holds the position of Faculty in various societies in Japan. She got awards in two international conferences on diabetic foot. She has published 6 English and 19 Japanese papers in reputed journals.

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