<Background>
Diagnostic imaging modality using magnetic resonance imaging (MRI) is one of the useful methods for diagnosis of soft tissue tumors, but soft tissue tumors mostly show non-specific findings. In this study, we focused on MRI findings of subcutaneous soft tissue tumors, to evaluate the diagnostic usefulness of the relationship between tumors and their surrounding tissues in differentiation of benign or malignant lesions.
<Methods>
The data from MRI information from 48 patients (men 24 women 24) with superficial soft tissue tumors, treated from Jul 2009 to Dec 2014 in our institution was collected. The median age at the time of first visit our institution was 54.2 years (range 16-83). The following parameters were evaluated, size, the edge of the tumor, lobulation, intratumoral bleeding, edema, and relationship between tumor and superficial fascia based on Galant classification. Comparison was made with definitive histological diagnosis.
<Results>
The statistical significance was observed in the factors of the edge of the tumor ($p=0.001$) and edema ($p=0.002$), but not in size ($p=1$), lobulation ($p=1$), intratumoral bleeding ($p=0.07$), and relationship between tumor and superficial fascia ($p=0.18$).
<Discussion>
The previous article reported that the size of over 5cm and its depth were related to the malignant tumor. The present study indicated that the edge of the tumor and edema in the superficial soft tissue tumor were significant factors for the malignant tumor.

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