Prognostic Significance of Containment (Shoulder vs Non-Shoulder) and Location (Medial vs Lateral) of Osteochondral Lesion of the Talus

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Introduction
Uncontained osteochondral lesion of the talar shoulder is associated with higher clinical failure in patients treated with current cylindrical osteochondral autograft techniques. Whether the same holds true in patients undergoing arthroscopic treatment is not known. We hypothesized that Arthroscopic treatment would not be ideal for shoulder type lesions due to a lack of structural support. The purpose of the present study was to determine the relative prognostic significance of containment (shoulder or non-shoulder) and location (medial or lateral) of osteochondral lesion of the talus (OLT).

Methods
For 399 ankles underwent arthroscopic treatment for OLT between 2001 and 2009, analyses were performed grouping the patients according to OLT containment (shoulder, n = 181; non-shoulder, n = 218), OLT location (medial, n = 274; lateral, n = 125), and both containment and location (medial shoulder, n = 129; medial non-shoulder, n = 145; lateral shoulder, n = 52; lateral non-shoulder, n = 73). To evaluate the role of OLT containment and location independent of OLT size, patients were grouped according to quartile of defect size, and outcome was reanalyzed within each group.

Results
Patients with shoulder type OLT had a substantially worse clinical outcome compared with those with non-shoulder type OLT, even after adjustment for OLT size (P < .05). However, there was no significant difference of clinical outcome in patients with medial OLT compared with those with lateral OLT, and clinical failure rate was similar (P > .05). Cox proportional hazards regression model demonstrated that containment, but not location, of OLT exerted an independent prognostic effect.

Conclusion
Patients with uncontained OLT of the talar shoulder experience a more complicated clinical outcome than do patients with contained, non-shoulder type OLT despite adjustment for OLT size and regardless of location.