MR-based trabecular bone microstructure is not altered in subjects with indolent systemic mastocytosis.

Subjects with indolent systemic mastocytosis (ISM) have an increased risk for osteoporosis. It has been demonstrated that trabecular bone microstructure analysis improves the prediction of bone strength beyond dual-energy X-ray absorptiometry-based bone mineral density. The purpose of this study was to obtain Magnetic Resonance (MR)-based trabecular bone microstructure parameters as advanced imaging biomarkers in subjects with ISM (n=18) and compare them with those of normal controls (n=18). Trabecular bone microstructure parameters were not significantly (P>.05) different between subjects with ISM and controls. These findings revealed important pathophysiological information about ISM-associated osteoporosis and may limit the use of trabecular bone microstructure analysis in this clinical setting.