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Title of Presentation	Long-Term Skeletal Outcomes of Zoledronate Therapy for Mastocytosis-Related Bone Diseases Reveal Different Trajectories in Patients with or without History of Anaphylaxis
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Abstract of Presentation	Background Zoledronate is widely used to treat mastocytosis-related bone disease, yet its long-term skeletal outcomes remain poorly defined. We evaluated fracture-free survival and longitudinal skeletal changes in a retrospective cohort of treated patients. Methods We retrospectively included consecutive patients with mastocytosis-related bone disease treated with continuous zoledronate for ≥3 years. Fracture-free survival was assessed using Kaplan–Meier and Cox regression analyses. Longitudinal changes in lumbar spine, femoral neck, and total hip T-scores and Z-scores were evaluated using linear mixed-effects models. Results A total of 114 patients were included; 77 (67.5%) had a history of anaphylaxis (table 1). During a median follow-up of 9.2 years, 47 incident fragility fractures (46

	vertebral) occurred. Fracture-free survival was 75.3% (95%CI 67.7–83.9%) at 5 years and 53.8% (95%CI 43.6–66.4%) at 10 years (Figure 1A). Previous anaphylaxis was independently associated with a lower fracture risk (adjusted HR 0.46, 95%CI 0.24–0.88; p=0.019; Figure 1B), whereas cutaneous involvement was not. CTX significantly decreased during follow-up (p<0.001), while serum tryptase remained stable. Both T-scores and Z-scores improved significantly at all skeletal sites (all p<0.001, figure 2), with the greatest gains at the lumbar spine. Despite these favorable densitometric changes, fragility fractures continued to occur throughout follow-up. Conclusions Long-term zoledronate therapy was associated with sustained improvements in bone density and suppression of bone turnover in mastocytosis-related bone disease. However, fracture risk remained substantial. Previous anaphylaxis identified a subgroup with significantly lower long-term fracture risk, independent of baseline clinical confounders.