

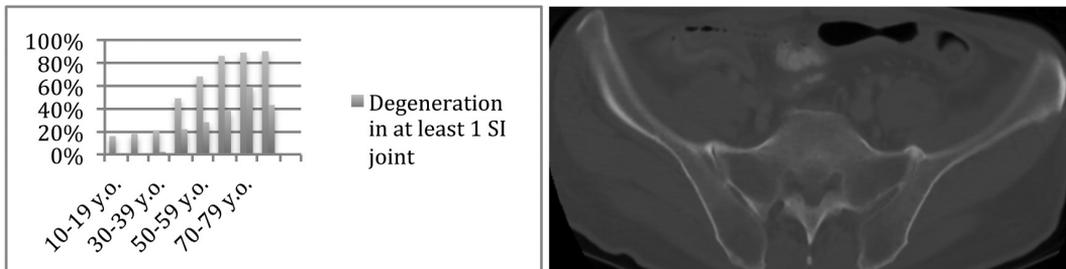
The Prevalence of Sacroiliac Joint Degeneration in Asymptomatic Adults: A Review of 500 CT Scans

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Purpose: Many physicians implicate degenerative changes in the sacroiliac (SI) joint as a potential cause of low back pain, especially in the setting of prior trauma to the pelvic ring. However, the age-related prevalence of SI joint degeneration in asymptomatic individuals has not been clearly established. The purpose of the study was to determine the prevalence of SI joint degeneration in asymptomatic patients.

Methods: Pelvic CT scans of 373 consecutive skeletally mature patients obtained for reasons other than back pain were reviewed for evidence of SI joint degeneration. Patients with a history of back pain, hip or spine surgery, trauma, metastatic cancer, or rheumatologic disease were excluded. SI joint degeneration was graded as type 0 if no degenerative changes were present, type 1 in the presence of minimal degenerative changes, type 2 in the setting of significant degenerative changes without ankylosis, and type 3 in the setting of ankylosis.

Results: The overall prevalence of degenerative changes in at least one SI joint was 35% and the prevalence of significant degeneration (type 2 or 3) in at least one SI joint was 30%. The prevalence increased with each decade of life with 16% of patients in the second decade of life and 90% in the 8th decade of life being affected. Significant degenerative changes were not observed in any patients younger than 25 years old (y.o.) but were present in 43% of patients in the 8th decade of life.



Conclusion: Degenerative changes of the SI joints are prevalent in an asymptomatic patient population and appear to be an expected part of human aging. Given the high prevalence of pain-free SI joint degeneration, surgeons must be cautious in attributing low back pain to SI joint degeneration seen on CT scan. Surgeons must be especially cautious in the post-traumatic setting, where often radiographic changes are assumed to be sequelae of prior trauma. Diagnostic tests to distinguish SI joint pain from other sources of back pain merit additional research.