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High-resolution ultrasound and magnetic resonance imaging to document tissue repair after prolotherapy: a report of 3 cases.

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High-resolution ultrasound imaging of musculoskeletal tissue is increasing in popularity because of patient tolerability, low cost, ability to visualize tissue in real-time motion, and superior resolution of highly organized tissue such as a tendon. Prolotherapy, defined as the injection of growth factors or growth factor production stimulants to grow normal cells or tissue, has been a controversial procedure for decades; it is currently gaining in popularity among physiatrists and other musculoskeletal physicians. This report describes imaging of tendons, ligaments, and medial meniscus disease (from trauma or degeneration). Although these tissues have been poorly responsive to nonsurgical treatment, it is proposed that tissue growth and repair after prolotherapy in these structures can be documented with ultrasound and confirmed with magnetic resonance imaging.

Directions for future research application are discussed.