

Rotator Cable Integrity in Shoulder Ultrasound

Systematic Assessment for Reliable Tear Classification



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The rotator interval lies between supraspinatus and subscapularis. The long head of biceps tendon (LHB) is bordered by the coracohumeral ligament (CHL) laterally and the superior glenohumeral ligament (SGHL) medially, with capsular fibers forming the floor, contributing to LHB and glenohumeral stability.¹

The CHL arises from the coracoid process, crosses the LHB, and surrounds supraspinatus and subscapularis with insertions on the greater and lesser tuberosities.^{2,3} The SGHL originates from the superior glenoid and forms the rotator interval floor with the CHL.⁴

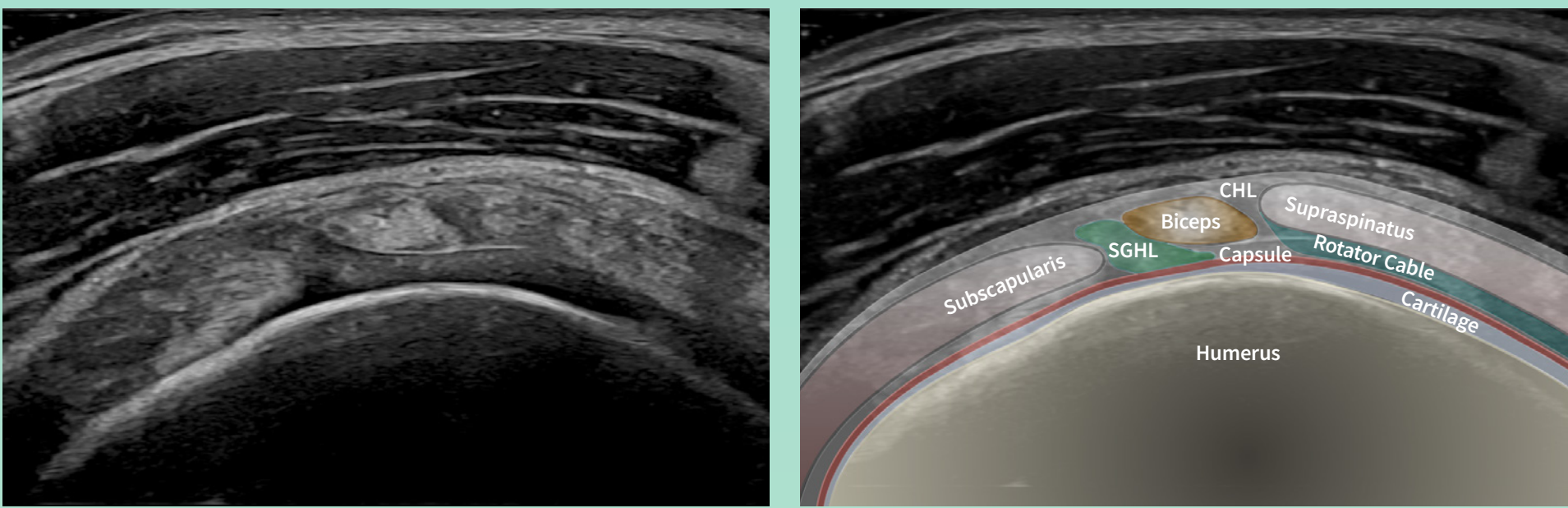
The rotator cable spans supraspinatus to infraspinatus and transmits rotator cuff forces to the humerus (stress-shield function).⁵

Tendon overload leads to degeneration (pain, dysfunction and subsequent rotator cuff tears) with possible involvement of capsuloligamentous structures.

Rotator cuff fibers attach to the capsule via CHL and rotator cable, contributing to force transmission. The involvement of capsuloligamentous structures in the setting of rotator cuff tears may influence management and prognosis.⁶

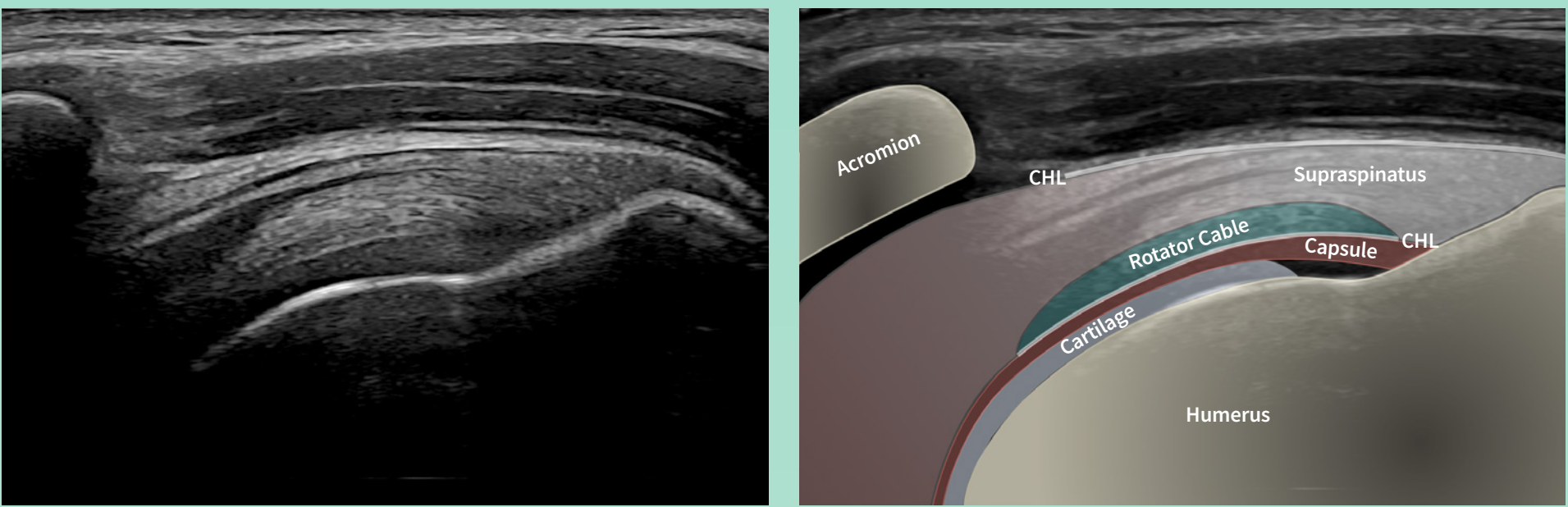
Rotator cuff, cable and capsule

Short-axis view



SGHL medial to LHB. CHL envelops supraspinatus and subscapularis. Rotator cable formed by deep perpendicular fibers of supraspinatus.

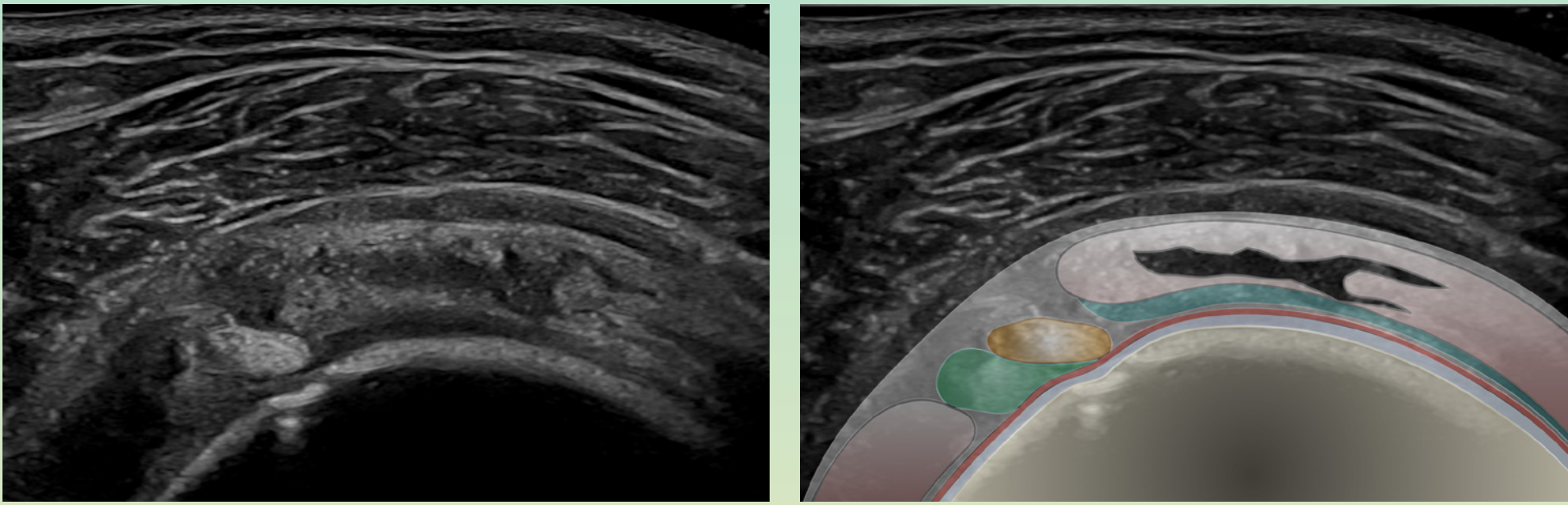
Long-axis view



CHL overlies supraspinatus with deep fibers attaching firmly to glenohumeral capsule via the rotator cable.

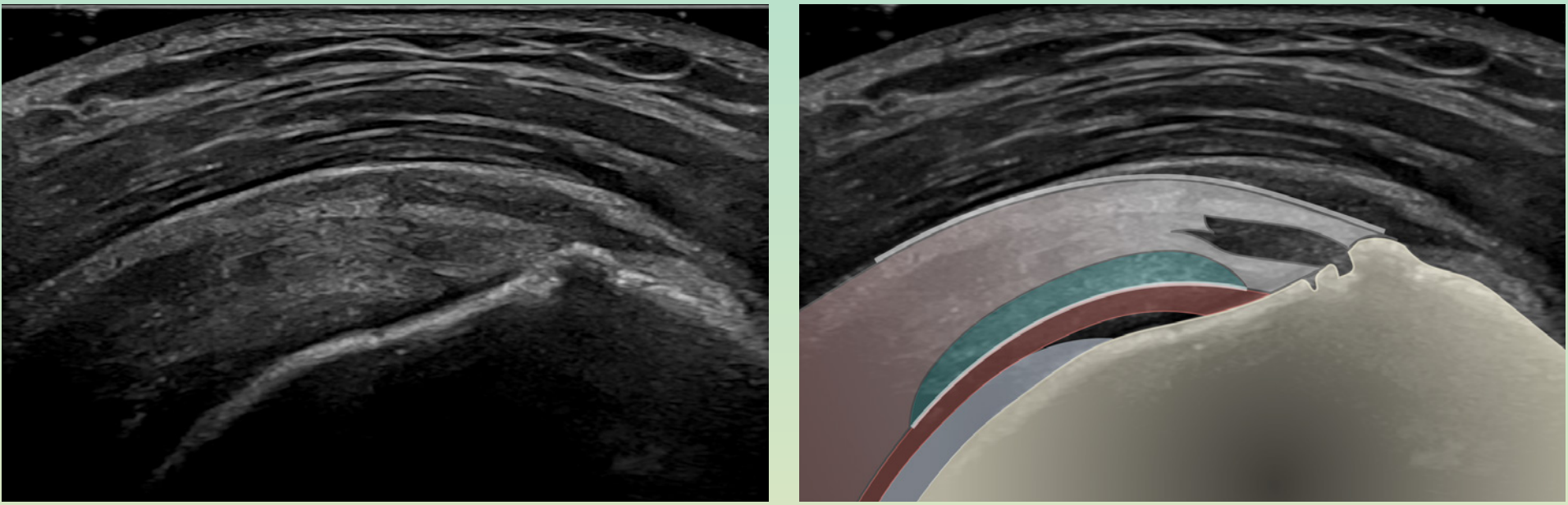
Cuff tear with preserved cable

Short-axis view



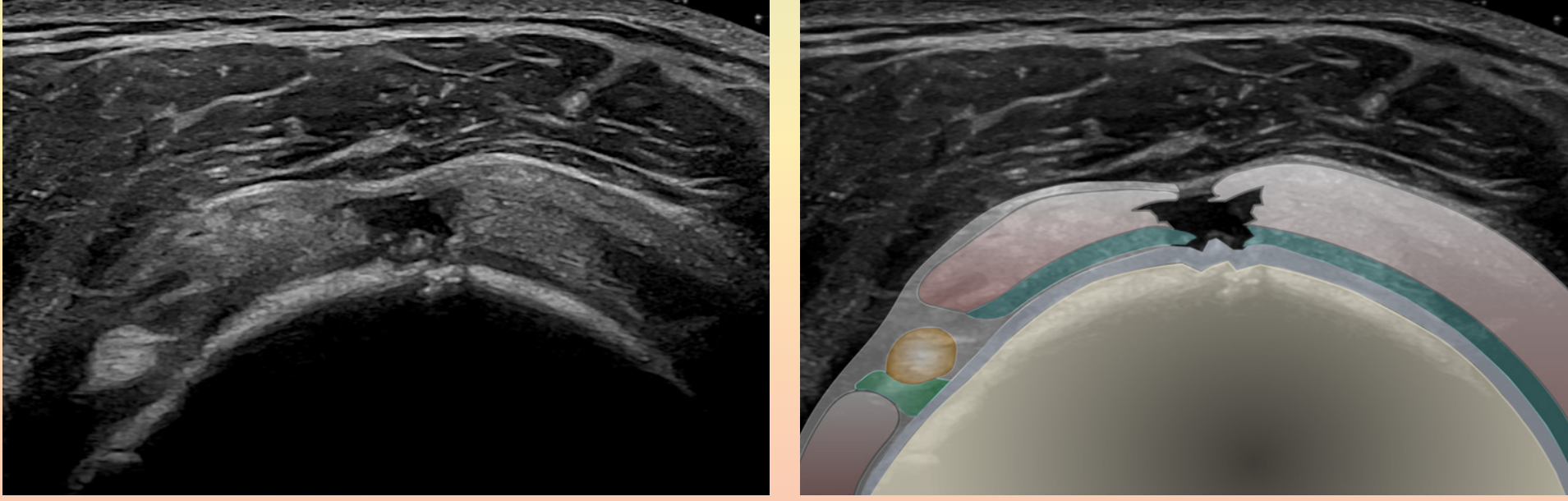
Full width, partial thickness, intrasubstance supraspinatus tear. Rotator cable and capsule intact.

Long-axis view



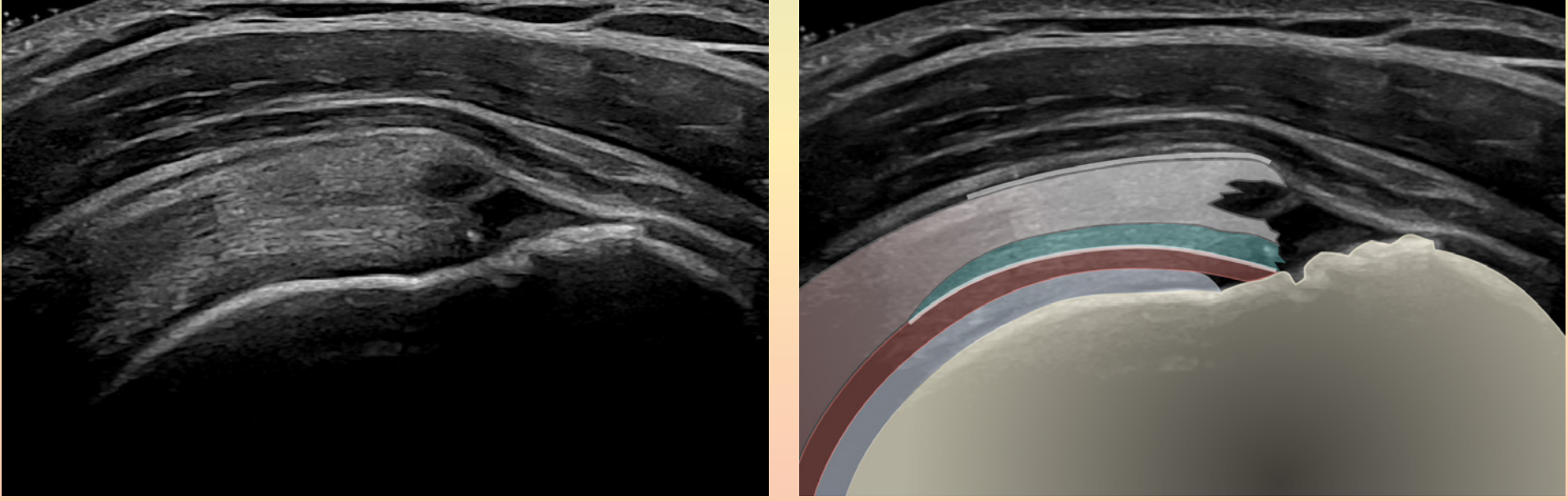
Cuff tear with cable involvement

Short-axis view



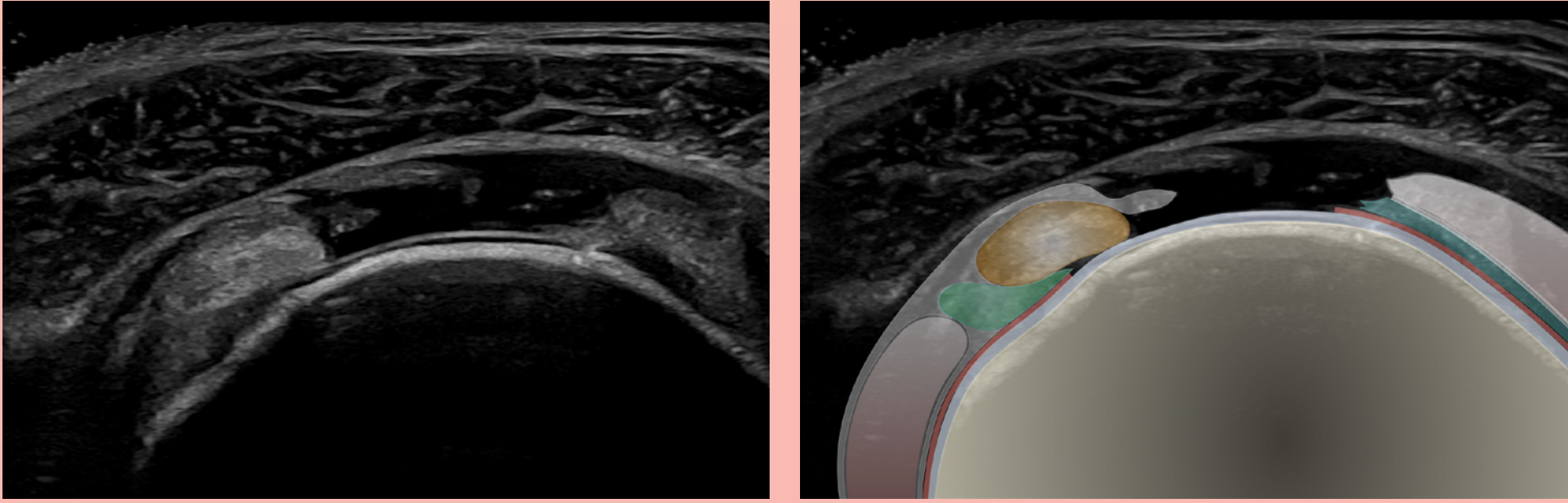
Partial width, full thickness, tear of posterior Supraspinatus/anterior Infraspinatus junction. Rotator cable disrupted, capsule intact.

Long-axis view



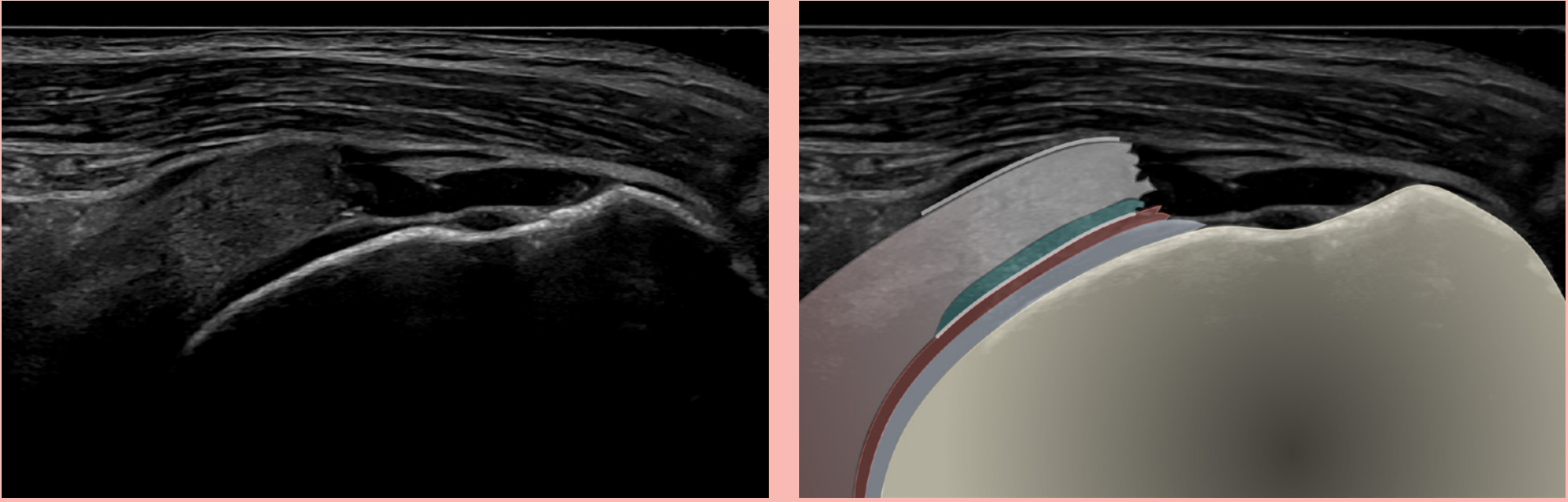
Cable disruption with impaired force transmission

Short-axis view



Full thickness, full width, complete tear of Supraspinatus involving anterior Infraspinatus. Rotator cable, superior capsule and CHL disrupted.

Long-axis view



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