Long Head of the Biceps Tendon Pediculated Autograft Augmentation of Subscapularis Repair during Total Shoulder Arthroplasty

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Access to the glenohumeral joint during a deltopectoral approach to total shoulder arthroplasty (TSA) often requires some form of subscapularis (SSc) tendon detachment, which may lead to iatrogenic damage and insufficiency of a previously healthy structure. Despite optimization of SSc management techniques, the overall repair failure rate remains high. While various biological and structural augmentation methods have been advocated to enhance healing of rotator cuff repairs, few options have yet been explored for SSc repair after TSA. In the present technical note, we describe a method involving the long head of the biceps tendon (LHBT) as a pediculated autograft to reinforce the SSc repair following anatomic or reverse TSA. After LHBT tenodesis, its proximal part is released from the supraglenoid tubercle while remaining in its groove to be subsequently placed at the rotator interval and sutured either to the SSc, the supraspinatus, or the entire anterosuperior rotator cuff on an individual basis. Repurposing the otherwise discarded tendon brings several mechanical and biological advantages for SSc repair healing at low cost and without donor-site morbidity.