



Arthroscopic Bony Bankart Repair

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INTRODUCTION

Arthroscopic bony Bankart repair may be indicated in patients with anterior glenohumeral instability in which part of the bony glenoid has been fractured or avulsed along with the antero-inferior (AI) glenohumeral ligament/labrum complex. Seen in both the acute and chronic (recurrent) setting, bony Bankart lesions are relatively common with a reported incidence ranging from 4% to 70%.¹⁻⁴ Failure to restore normal structural integrity to the anterior glenoid has been convincingly shown to increase the risk of recurrent instability following conventional soft tissue arthroscopic repair alone.⁵⁻⁹ Biomechanical studies have further reinforced the importance of preserving and/or re-establishing the normal architectural vault of the glenoid rim as critical to restoring normal shoulder stability.¹⁰ Although the precise tolerance for glenoid bone loss (via fracture, erosion, or some combination) is not currently known, there seems to be an emerging consensus that anterior or AI bone defects approaching or exceeding 20% to 25% of the glenoid's normal diameter jeopardizes the effectiveness of an arthroscopic soft tissue repair alone.

The most commonly described and performed bony Bankart repair is the single-row technique, in which individually spaced anchors are placed along the rim or onto the face of the glenoid. Such an approach has been shown to be highly effective,^{7,8,11-14} and is particularly appealing when dealing with fairly small fragments or when bone fragment quality is suboptimal (comminuted, crumbling, soft). (*Note:* Small here is defined as a fragment whose mediolateral dimensions are typically similar or less than the thickness of the labrum through which sutures will be passed [ie, 4 to 5 mm]. Bone fragments that are larger than this pose a greater challenge to encompass or pass through using various suture-passing devices, and may warrant consideration of a "bridge" or "2-row" technique.) The bone fragment(s) is/are incorporated into the repair itself using simple sutures to ensnare the bone within the capsuloligamentous complex.

Recent interest in achieving improved fixation has led to the evolution of a double-row procedure, first described by Zhang and Jiang¹⁵ and further refined and popularized as a "bony Bankart bridge" technique by Millett et al.^{16,17} Fixation is achieved by using suture anchors medial to the fragment on the glenoid neck, encircling the bone and adjacent capsulolabral tissue, and docking them into the anterior glenoid using knotless anchors. This ingenious approach offers the biologic advantage of eliminating sutures within the fragment/glenoid interface and, in the lab, has proven