

# Editorial Commentary: More Is Better? The 6-O'clock Anchor in Instability Surgery



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**Abstract:** Placing an anchor at the 6-o'clock position on the glenoid when performing an arthroscopic Bankart repair has been suggested by multiple authors as a potential key step in improving the outcomes of arthroscopic repair. Placement of a 6-o'clock anchor increases the peak resistance force to displacement over a traditional 3-anchor repair. Determining what technique issues are relevant remains problematic, and the ultimate preferred technique remains elusive.

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In their article "The 6-O'clock Anchor Increases Labral Repair Strength in a Biomechanical Shoulder Instability Model," Bokshan, DeFroda, Gil, Badida, Crisco, and Owens<sup>1</sup> present a case for placing a 6-o'clock anchor in the glenoid when performing an instability repair in the presence of a Bankart lesion. It is no surprise that bone loss was shown in their study to obviate the benefit of any additional anchor placement. Although presenting convincing evidence that the resulting construct has more peak resistance force to 1 cm of anterior displacement than a 3-anchor repair without a fourth 6-o'clock anchor, as with all good studies, this study raises more questions than answers.

The first question is the optimal time-zero strength of the repair. Bokshan et al.<sup>1</sup> report that the purportedly inferior repair without the 6-o'clock anchor in fact creates a repair with a displacement equal to the original uninjured shoulder. Is it necessary (or even desirable) to create a construct that is 15.8% stronger than the native structure? Could this "overconstrained" construct create additional problems? Apropos of nothing, is "stronger" always better, and at what point is the time-zero increase in strength redundant? An increase in the strength of the repair might well pose additional risks; the risks of this stronger 6-o'clock anchor construct are well documented by Lim et al.<sup>2</sup> and other authors,<sup>3</sup> with some

recommending a curved guide to avoid complications with placement of this anchor.<sup>3</sup>

A second question is as follows: Is the 6-o'clock anchor the dependent variable, or could it be something else about the construct? Barber<sup>4</sup> showed that in arthroscopic rotator cuff repair, the dependent variable was not the number of rows but was the number of sutures. This might well generalize to the Bankart repair technique of Bokshan et al.<sup>1</sup> and so not require a risky 6-o'clock anchor. Would the surgeon do just as well using double-loaded anchors and so obtain more sutures in this fashion without the risk of the 6-o'clock anchor?<sup>5</sup> Double-row Bankart repair has also been described.<sup>6</sup> Is this the better alternative? Are Bokshan et al. proposing to detach an intact 6-o'clock labrum to gain the proposed mechanical advantage of this anchor placement? Detachment to the 6-o'clock position was what was modeled in their study.

Putting everything on the table, is arthroscopic Bankart repair even the right answer? The original work of Balg and Boileau<sup>7</sup> with the Instability Severity Index Score listed a score of 6 as the maximum score a patient could have and still be recommended to undergo an arthroscopic Bankart repair. This score has been revised since then, allowing arthroscopic Bankart repair with a score of only 3 or less,<sup>8</sup> which in my practice eliminates 90% of the patients who present to me with anterior glenohumeral instability. Despite the inconsistencies found by myself<sup>9</sup> and other authors<sup>10</sup> with using the Instability Severity Index Score, should we just stop trying to improve the outcome of arthroscopic Bankart repair by changing the arthroscopic technique or simply switch to some type of open procedure in most patients?

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In the end, the type and technique of instability repair given the limited data available should be chosen using a shared decision-making approach with the patient. Logic, such as is allowed, would recommend placement of a 6-o'clock anchor if the labrum is detached at this point on the glenoid and perhaps not placing an anchor there if the labrum is already well fixed at that location. The justification for restoring the anatomy to a construct stronger than the original anatomy is limited. The optimal treatment algorithm to treat recurrent anterior shoulder instability remains elusive.

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