***CORR* Insights®: Factors That Influence the Choice to Undergo Surgery for Shoulder and Elbow Conditions**

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Where Are We Now?

The decision to undergo elective surgery is often complex, requiring both an informed patient, and an informed surgeon who recognizes the numerous risk factors at play. Identifying the four P's (Problem, Patient, Procedure, and Physician) can guide the decision making process, while also reducing the overall risk of the elective surgery.

First, what is the problem the patient is experiencing? Can the complaint of the patient be reduced to a mechanical issue that can be addressed by the mechanical intervention of surgery?

Second, is the patient physically and emotionally a good candidate for surgery? Does the patient have the social/family resources necessary for the aftercare?

Third, what is the procedure? In that surgery is a mechanical intervention, does the procedure address the mechanical issue being experienced by the patient?

Finally, who is the physician? Is the surgeon well-qualified to get a good result with this procedure for this problem in this patient, or would someone more experienced do a better job?

Too often we encounter statements, such as this conclusion from a cadaver study published recently in a well-known orthopaedic journal [3], "Clinicians should consider early repair of rotator cuff cable tears, which may need surgical intervention to address their biomechanical pathology. In contrast, surgical treatment may be more safely delayed for rotator cuff crescent tears." Respectfully, these concerns seem minor when contrasted with the patient's symptoms, age, overall health, smoking status, occupation, and activity requirements.

As surgeons, we have an inherent conflict of interest — in most practice settings, surgeon reimbursement is better if the choice is for surgery, rather than nonoperative management; reimbursement is better for more complex procedures than simple ones. The perceived likelihood of successful surgery depends in large measure upon the presentation the surgeon makes to the patient. Like a good pitcher, a surgeon can tempt the patient to swing at a pitch, even if it is not a good one to hit. In the presentation of a surgical option, the challenge is to be sure that the surgeon is the right person to perform the given procedure for the specific problem in the individual patient. All things considered, is the choice for a specific surgery appropriate?

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Where Do We Need To Go?

Veillette and colleagues studied the factors that influence the willingness of patients considering elective orthopaedic surgery. They started with a cohort of patients seeking surgical consultation for shoulder or elbow conditions, attempting to identify factors that influenced the willingness and decision to undergo surgery.

Veillette et al. found that poor command of the English language, living alone, low SF-36 mental score, lower perceived likelihood of success of surgery, and lower income correlated with unwillingness to consider surgery. While the authors opine that the identified factors may act as “barriers to potentially beneficial surgical interventions,” this may not, in fact, be the case. Alternatively, these patient factors may be associated with poorer results of surgical procedures, which often require good surgeon-patient communication, social/family support, mental solidarity, optimism, and potentially costly physical therapy [1, 2]. It may not be a good idea for us to try to convince these unwilling patients to have surgery unless these patient factors can be satisfactorily addressed.

It may be time to refocus the conversation. Rather than concerning ourselves with factors that affect the willingness of patients to have surgery, we may be better off trying to hone in on the appropriateness of well-characterized surgical procedures performed by individual providers for specific problems in specific patient categories.

How Do We Get There?

A patient with a rotator cuff tear may be willing to have a repair, but is it appropriate to do a repair on a heavy smoker? A patient with a “SLAP lesion” seen on MRI may be willing to have a repair, but is that appropriate treatment

if the patient is 60 years of age? A patient with recurrent instability may be willing to have a Latarjet procedure, but is it appropriate for the surgery to be done by a surgeon who has never performed this procedure before? A patient with pseudoparalysis of the shoulder may be willing to have a reverse total shoulder, but is it appropriate to do this surgery on an individual who lives alone in a remote cabin without means or social support?

In contemplating what kinds of studies would be helpful, one might consider several suggestions. First, the key to assessing appropriateness is the determination of value of the intervention (improvement divided by the cost). Next, we need to define a meaningful metric for quantifying improvement from a surgical procedure, such as the amount of improvement in patient-reported comfort and function. Third, we need to measure the total cost of the treatment, including complications. Finally, we need to determine which procedures offer the greatest value by considering the importance of the specific diagnosis, the specific patient and the specific surgeon. Once we have this information, we will be much better prepared to encourage the willingness of patients to have surgical procedures that are appropriate for them.

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