Shoulder Dislocation Maneuvers Lack Evidence

BY ROBERT FINN San Francisco Bureau

DENVER — Shoulder dislocations are common occurrences, but there's surprisingly little agreement on the best way to treat them, Dr. John E. Kuhn said at the annual meeting of the American College of Sports Medicine.

Based on the level of supporting evidence, Dr. Kuhn of Vanderbilt University, Nashville, Tenn., divided knowledge about shoulder dislocations into the following three categories:

▶ Things we know. Three well-designed, randomized, controlled trials have looked at premedication using IV sedation compared with intraarticular injections of lidocaine. Taken together, the success rate for reducing shoulder dislocation was identical for the two methods—92%. Likewise, there were no significant differences in the amount of pain the patients experienced. But there were large differences in the

complication rates. About 16% of the patients receiving IV sedation experienced a complication, primarily respiratory depression requiring naloxone or some other drug. Only 1% of the patients receiving lidocaine experienced a complication.

In two out of three studies, the time to reduction was about 5 minutes shorter with IV sedation. However, the total time in the emergency department was a full hour shorter for lidocaine in all three studies.

Five studies address whether immobi-

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lization helps reduce recurrence rates in first-time dislocators, and if so, whether it is better to immobilize the joint in an external or internal rotation. There is excellent level 1 evidence that immobilization in internal rotation has no effect on recurrence rates, and there's level 2 evidence indicating that immobilization in an external rotation may reduce recurrence rates.

Arthroscopic surgery decreases recurrence in first-time dislocators, compared with those who receive nonoperative treatment, according to the findings from three level 1 studies that were highly significant, both statistically and clinically. But that doesn't mean that all first-time dislocators should have arthroscopic surgery, he cautioned. The recurrence rate is about 50% with nonoperative treatment, but it's difficult to predict who will benefit most from surgery. Dr. Kuhn suggested that younger patients who have a Hill-Sachs deformity, and those who engage in contact or overhead sports, are most likely to benefit.

The recurrence rates were similar regardless of whether open versus arthroscopic surgery techniques were used for Bankart repair in the recurrent dislocator, according to the findings of three good studies. Given the easier postoperative course following arthroscopic repair, Dr. Kuhn suggested that "if you feel you have the skills to do it arthroscopically, you should go ahead and do it arthroscopically." ► Things we think are true. In the course of his literature review, Dr. Kuhn tabulated no fewer than 24 different methods for reducing shoulder dislocations. Most are variations of six basic techniques: the Kocher technique, the Milch technique, the Stimson technique, external rotation, traction/countertraction, and scapula manipulation. Studies comparing these various techniques are rarely well controlled, and they are subject to performance bias. All report about 80%-100% success rates for each of the techniques.

In the absence of rigorous comparison studies, no one technique can be considered better than any other. He suggests that physicians learn at least two or three of the techniques, so that if one doesn't work in a particular patient the physician will have other options.

The Stimson technique, he noted, may be especially well suited for use in a busy office. In this technique, the patient lies face down on an exam table with the affected arm dangling down over the side. Weights are placed on the arm, and the patient is left alone for 15-20 minutes. Within that time the patient's muscles typically relax and the shoulder pops in by itself. ► Things we believe. One of the biggest questions related to shoulder dislocation is how soon an athlete can return to his or her sport after the shoulder has been reduced. Two articles in the literature address this question, but are based not on scientific study but on expert opinion, or level 5 evidence. Here, the consensus appears to be that it's safe to return to activity when the patient has little or no pain, regains near-normal range of motion and near-normal strength in the affected arm, and when the patient is able to perform sport-specific activities.