20 Arthroscopic Rotator Cuff Repair Instruments and Equipment: Setting Yourself Up for Success

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The purpose of this chapter is to discuss the tools, instruments, and equipments that are available for arthroscopic rotator cuff repair. Once a determination has been made that the patient has a reparable rotator cuff tear, having the appropriate set up and equipment available to fix the tear is essential. The authors describe the key instruments needed and how they influence the key steps of the procedure. An improved understanding of the instruments and equipments available for arthroscopic rotator cuff repair and how to use them properly will help make the procedures easier and more efficient, and this in turn will result in improved clinical outcomes for patients.

POSITIONING

The authors prefer to use the beach-chair position as described in chapter 1. An operating table that allows good exposure to the entire shoulder and does not limit arm positioning is a must. The medial border of the scapula must be free so that there is room to pass instruments at the necessary angles. The authors also recommend the use of a mechanical arm holder, such as the Spider limb positioner (Tenet Medical Engineering; Calgary, Canada) or the McConnell arm holder (McConnell Orthopedic Manufacturing Company; Greenville, Texas, U.S.A.), in order to position the arm appropriately during different parts of the case. The arm holder is one of the most important pieces of equipment that facilitates arthroscopic rotator cuff repair—it allows the surgeon to apply traction to the arm, which opens the subacromial space and thus improves visualization; it allows the tear to be rotated into the optimal position; and it obviates the need to have an assistant for arm positioning. Surgeons may also choose to position the patient in the lateral decubitus position, which necessitates the use of lateral traction to place the arm with the appropriate amount of traction and abduction. However, in the authors' opinion, this position does not allow dynamic inspection and movement as readily as the beach chair with an arm holder.

INSTRUMENTATION

There have been great advances in the last few years in arthroscopic shoulder instrumentation. The advent of procedure-specific instruments has greatly facilitated arthroscopic rotator cuff repair.

The basic instruments should include a 30° arthroscope (a 70° can be helpful at times), a motorized shaver, a radiofrequency tissue ablation device, and basic open retractors (particularly, if the rotator cuff repair procedure is converted to open procedure or if an open biceps tenodesis is planned). The authors prefer to use an arthroscopic pump for fluid management, as this allows the surgeon to control the pressure as needed. The authors also use epinephrine in the saline, as this has been shown to decrease bleeding. It is helpful to keep the pump

Please refer to pages 215–218 for the figures in this chapter.