The Mini Vent Technique: A Simple Method to Facilitate Accurate Secondary Portal Placement in Shoulder Arthroscopy


Abstract: Accurate portal placement is crucial in diagnostic and therapeutic shoulder arthroscopy. However, knowledge of anatomy and surgical principles may not be enough. Placement of a second portal is often hindered by a small amount of bleeding. Our technique easily rectifies this frequent problem by using a simple mini-vent. Key Words: Shoulder—Arthroscopy—Visualization—Blood—Portals—Turbulence.

shoulder requires a meticulous surgical field. A thorough knowledge of anatomy is essential but is not the only prerequisite. Direct and indirect methods of controlling the bleeding points are possible. These are applicable during the later stages of the arthroscopic procedure. Different commercial pumps have been compared with regard to relative effectiveness in helping reduce bleeding. The goal of our technique is to facilitate the earlier part of the procedure. It is most effective for the first examination of the gleno-humeral joint and guiding the second needle to help place the second portal.

The principle behind our technique may be similar to Bernoulli’s effect. Control of the turbulence has been suggested to lead to control of the stirring of the blood and irrigation fluid. By using a narrow-bore needle, we can significantly reduce the velocity and volume of the exiting fluid, minimizing turbulence as if with digital pressure inside a portal.

During initial portal placement, only a small amount of blood is seen. A major advantage of this technique is that the cannula can be placed within the pool of blood droplets. This allows this small amount of blood to exit the field of view quickly and efficiently, without causing turbulence. Different flow rates of the cannulas have been investigated. We suggest trying different sizes to suit the particular setup depending on what is available and the surgeons’ preference for pressure setup.

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REFERENCES