Implanting a penile prosthesis in corpora cavernosa with significant fibrosis represents a challenge to the surgeon. Fibrosis may result from delayed re-implantation following removal of an infected prosthesis, extensive Peyronie’s disease, as well as veno-occlusive priapism. Forceful dilation of the corpora cavernosa against resistance is performed in a blind fashion. Complications resulting from aggressive blind dilation include perforation of the corpora and injury to the urethra. The optical corporotomy and resection technique allows a tunnel to be created within rather than alongside the fibrous tissue to accommodate the prosthesis without force and under vision.
To start the optical corporotomy, the visual urethrotomy blade is used to sharply incise fibrous tissue along three lines assuming a stellate configuration, away from the urethra, under direct vision. Each incision is approximately 1 cm long. The stellate incision is then dilated with blunt metal dilators. This process is repeated along the entire length of the pendulous penis. Resection of the fibrous tissue with a diathermy loop may follow to smooth out the inner wall of the tunnel created within the corpora cavernosa.
The process is repeated in the crura, proceeding down to a depth that is determined by palpating the firm fibrosed crura and the ischial tuberosity. Accidental puncture of the tunica albuginea is possible, in which case it is immediately detectable due to extravasation of the irrigation fluid. Repair of the tear does not seem to be required. Being sharply incised and small in caliber due to the size of the blade, it heals spontaneously.
When using visually monitored, forceless sharp resection, perforation should occur much less frequently than with blunt forceful dilation. Excavation of the fibrous tissue allows insertion of a larger caliber prosthesis as well as unhindered inflation of the cylinders. The edges of the skin incision are freshened by excising the previous scar—in the case of re-implantation—and closed.