

CARBON COATED ZIRCONIUM BEADS PERIURETHRAL INJECTION FOR FEMALE URINARY STRESS INCONTINENCE

Synopsis of Video

The periurethral injections have been proposed for the treatment of type III urinary incontinence in women. Teflon, cross-linked bovine collagen and silicon have been the most used materials. However, the use of teflon is controversial because of the evidences of particle migration and the risk of carcinogenic effect. The absorption of collagen brings the problem of repeated procedures. Moreover, the silicon preparation commercially available demands a specially designed injection tool. To solve these problems, a new material composed of carbon coated zirconium beads was developed, allowing an easy and accurate injection in the urethral submucosa. This video highlights the technical details of this procedure.

The bulking procedure is performed with the patient under regional anesthesia and in the lithotomy position. The injections are performed transurethrally under direct vision using a 24 Fr cystoscope with a 12-degree telescope and an endoscopic needle provided by the manufacturer. The bulking agent was injected submucosally between the bladder neck and external sphincter (midurethra). Initial needle punctures were performed approximately one and one-half centimeters distal to the bladder neck. The number of injection sites depended upon the degree of closure achieved during the procedure, but typical locations included the 3, 6 and 9 o'clock positions. Usually, a mean of 6 cc (range 2 to 7) is injected per treatment.

The combination of a safe procedure, quickly performed, producing durable results in a minimally invasive manner is to become increasingly attractive to patients and their surgeons. Thus the submucosal injection of the carbon coated zirconium beads can become a first line alternative for treatment of stress urinary incontinence due to intrinsic sphincteric deficiency or as a simple saving procedure after other techniques.