

PRELIMINARY RESULTS OF MITOMYCIN ON RECURRENT BLADDER NECK CONTRACTURE AFTER RADICAL PROSTATECTOMY

Hypothesis / aims of study

One of the most frequent complications after radical prostatectomy (RP) is bladder neck contracture (BNC) that occurs in approximately 10% of patients. Several treatment options for BNC have been proposed, but none reached a consensus and success rates are disappointing. Mitomycin, by inhibiting fibroblast proliferation, decreases scar formation. It was already used as an anti-scarring agent treating successfully glaucoma, tracheal and oesophageal strictures. In urology, 0,1 mg of Mitomycin had been used after laser incision to treat anterior urethral stricture. The objective of this study is to assess the safety and efficacy of Mitomycin in recurrent BNC.

Study design, materials and methods

Recurrent BNC was defined as the inability to pass a 16 French cystoscope through the stricture after at least one previous treatment. The initial workup included history, physical examination, urodynamic studies, urinalysis and urine culture. After informed consent, 0,1 mg of Mitomycin diluted in 2 mL of normal saline was injected submucosally at 3, 6 and 9 o'clock positions and the BNC was then dilated with «S shape» dilators up to 18-20 Fr under sedation. A 16 Fr urinary catheter was left in place for 3 days. Follow-ups at 2, 6 and 12 months were scheduled (urinalysis, urine culture and cystoscopy). If a recurrence occurred, patients were offered another treatment option.

Results

From March to July 2009, ten patients had recurrent BNC after RP diagnosed in the workup of urinary incontinence. Nine patients had retropubic and 1 had laparoscopic RP. The mean age was 67 years old [59-75]. The mean time between RP and diagnosis of BNC was 39 ± 7 months [2-180]. Patients had an average of 2 treatments for their BNC before Mitomycine [1-9]. All patients had dilatation, 2 had laser incision and 2 had cold knife incision. Eight patients showed no recurrence of BNC at 2 months follow-up cystoscopy. Of those recurrences, one had 9 and the other had 4 previous treatments. Five patients completed 6 months of follow-up and they were still stricture free. No adverse event was reported.

Interpretation of results

Mitomycin injection with stricture dilatation had an efficacy of 80% at 2 months of follow-up. The response of this treatment seems to be sustained at 6 months of follow-up. The patients that recurred had a complex history with multiple treatment failures. Nevertheless, these patients had a subjective improvement in their stricture burden at control cystoscopy. Mitomycin injection and dilatation seems safe. Also, it is a minimally invasive procedure that can be performed under light sedation.

Concluding message

Preliminary results of this case series showed an 80% success rate at 2 months post Mitomycin injection and dilatation for recurrent BNC after RP. For the patients who responded the efficacy is sustained at 6 months of follow-up. It seems promising and there is no associated adverse event. However, longer follow-up and further studies are needed to assess its use and long term efficacy in the treatment of BNC following RP.

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<i>Is this a clinical trial?</i>	Yes
<i>Is this study registered in a public clinical trials registry?</i>	No
<i>Is this a Randomised Controlled Trial (RCT)?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Etienne Lebel ethics committee
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes