

Cystoscopic injection of N-butyl-2-cyanoacrylate followed by fibrin glue for the treatment of persistent or massive vesicourethral anastomotic urine leak after radical prostatectomy.

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Publication Date: 2013

Abstract:

Objectives: Vesicourethral anastomotic urine leak is a common postoperative complication of radical prostatectomy. Herein we describe a novel method for the treatment of this complication. **Methods:** Intervention for a prolonged or massive anastomotic urine leak was required in 10 out of 1828 patients (0.5%) submitted to radical prostatectomy between 2007 and 2011. N-butyl-2-cyanoacrylate (Histoacryl) followed by fibrin glue (Greenplast) were injected under local anesthesia into vesicourethral anastomotic gaps under fluoroscopic guidance using a 20-Fr rigid cystoscope. Cystograms were taken in all patients to confirm complete urine leak resolution before the removal of the urethral catheter. **Results:** Cystoscopic injection of Histoacryl followed by fibrin glue was technically successful and well tolerated in all patients. The mean time from radical prostatectomy to glue injection was 16.0 days (range 12-27 days). Urethral catheterization was required for an average of 7.7 days after cystoscopic injection of fibrin glue (range 3-13 days). These measures ultimately enabled complete resolution of the urine leak in all cases. At a mean follow up of 23.3 months, all 10 patients were fully continent. The mean time to recovery of urinary continence was 20.4 weeks (range 3.9-60.0 weeks). **Conclusions:** Cystoscopic injection of N-butyl-2-cyanoacrylate followed by fibrin glue into the anastomotic gap is both a feasible and effective solution in patients with a persistent or massive vesicourethral anastomotic urine leak after radical prostatectomy. © 2013 The Japanese Urological Association.