Use of evicel fibrin sealant for improving hemostasis following transurethral prostate debulking surgery in patients with BPH.

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Abstract:

INTRODUCTION AND OBJECTIVES: In this exploratory study we aim to determine the feasibility and effectiveness of application of EVICEL fibrin sealant into the prostatic cavity for improvements in hemostasis after transurethral prostate surgery. METHODS: We conducted a prospective, subject and assessor blinded, randomized controlled study in 29 patients with LUTS/ BPH. Following completion of the transurethral debulking procedure, the following steps were taken in EVICEL group (n = 15): bladder and urethra were emptied of fluid and filled with 15mmHg CO_2 gas employing a standard CO_2 insufflator. EVICEL was applied inside the prostatic cavity under direct visualization. In 14 control patients, the procedure was ended following standard debulking techniques. Post-op bleeding was evaluated at 1, 6 and 24 hrs after surgery by measuring hemoglobin level in the bladder irrigation fluid. Patients were followed for 3 months evaluating urinary symptoms and possible complications. RESULTS: The mean patients' age was 63 and 68 yrs in control and EVICEL groups, respectively. Application of sealant added in average 13 (7-20)min to the standard surgery.Hemoglobin level in irrigation fluid 1, 6 and 24 hrs after surgery was 11.25 +/- 18.65 vs. 5.97 +/- 6.03mg/dl, 9.25 +/- 10.22 vs. 8.68 +/- 6.31mg/dl and 11.37 +/- 12.6 vs. 5.23+/- 2.84mg/dl in control and EVICEL groups, respectively (P > 0.05). Patients in EVICELgroup have 46.9%, 8% and 46.2% less bleeding 1,6 and 24 hrs after surgery, respectively. Both groups were comparable in terms of post-op voiding symptoms, surgical outcome and QOL questionnaires. CONCLUSIONS: This is the first report of successful application of fibrin sealant following endoscopic prostate debulking procedure with some improvements in reduction in

bleeding. Further studies are warranted.