

Holmium Laser Enucleation of the Prostate in Patients on Anticoagulant Therapy

Introduction and Objective: Oral anticoagulation has been often considered as a strict contraindication to transurethral resection of the prostate (TURP) because of a risk of severe hemorrhage. Recently holmium laser enucleation of the prostate (HoLEP) has been shown fewer bleeding complications than TURP. We assessed the safety and efficacy of HoLEP in patients on anticoagulant therapy.

Materials and Methods: We retrospectively reviewed the records of 156 consecutive patients who underwent HoLEP at our institution between October 2004 and February 2012. All prostatic adenomas were enucleated by the so-called three-lobe technique. This procedure was performed at a laser setting of 72 to 100W (1.8 to 2.4 J and 30 to 50 Hz). Thirty-five patients were on chronic oral anticoagulant therapy (group 1) and 121 without anticoagulant therapy were regarded as control (group 2). Two patients underwent HoLEP without oral anticoagulant withdrawal, 10 underwent with heparin substitution and 23 stopped anticoagulants before surgery. Postoperatively, anticoagulants were resumed after the patients could receive medication. Perioperative and postoperative data were compared between the two groups.

Results: The mean total operating time was 145.2 and 173.9 minutes in group 1 and group 2, respectively ($P=0.046$). The weight of tissue retrieved was 50.2 g and 58.2g, respectively ($P=0.12$). The decrease in hemoglobin level was 1.2 g/dl and 2.0 g/dl ($P=0.002$). There were no significant differences in the duration of postoperative catheterization (group 1, 2.3 days; group 2, 2.1 days; $P=0.87$) and that of hospital stay (group 1, 7.7 days; group 2, 6.8 days; $P=0.23$) between these two groups. One patient in group 1 undergoing heparin substitution and 2 patients in group 2 required early postoperative blood transfusions. No patients required termination of the procedure because of intraoperative bleeding.

Conclusion: HoLEP may be the ideal treatment for patients on anticoagulant therapy with symptomatic benign prostatic hyperplasia.