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Conflict of Interest

Dr. Bilal Chughtai is Consultant & Investigator of Boston Scientific, Procept BioRobotic and Prodeon.  
Dr. Naeem Bhojani is Consultant of Boston Scientific, Procept BioRobotic and Olympus.  
Dr. Kevin C Zorn is Consultant of Boston Scientific and Procept BioRobotic.  
Dr. Dean Elterman is Consultant of Astella as well as Consultant and Investigator of Boston Scientific, Medtronic, Olympus, Procept BioRobotic, Prodeon, Urotronic and Zenflow.

INTRODUCTION

Rezūm convective water vapor ablation is a minimally invasive procedure to treat benign prostatic tissue. Herein, we report the prospective, multi-center results of the largest cohort of prostates treated with Rezum in Canada.

METHODS

A prospective registry was established for Rezūm therapy in Canada (2019) at two high-volume centers. All patients had baseline medical and BPH history documented along with uroflowmetry (Qmax and PVR), and validated questionnaires (IPSS, IPSS QoL, BPHII, IIEF-15, MSHQ-EjD function and bother).

RESULTS

229 patients (mean age 67.3 years), including 83 with prostate volumes  $\geq 80$ ml, were treated with Rezūm from April 2019 to December 2020. The mean prostate volume was 71.5ml (range 20-160ml) and 55% had a median lobe. 39 patients had prior episode of urinary (Table 1). Mean number of injections was 11 (range 4-28). Mean duration of procedure was 4.8 minutes (range 1.5-14). Mean duration of post-procedure catheterization was 9.8 days.

IPSS reduced from a baseline score of 22 by 29% (15.8), 53% (10.3), 59% (9.3) at 1, 3, 12 months respectively. IPSS QoL score improved from a baseline of 4.4 to 2.2 (-50%) at 3 months and 1.5 (-66%) at 12 months (Fig 1). Qmax improves from a baseline of 8.7ml/s up to 13.9ml/s (60%) at 3 months (Fig 2). BPHII improved from a baseline of 7.1 to 3.9 (-45%) at 3 months and 2.8 (-63%) at 12 months. IIEF showed no significant change from 51 at baseline to 52 at 12 months. Similarly, no changes in MSHQ function (9.4 to 9.4 at 12 months) or bother (1.7 to 1.6 at 12 months) (Fig 3). No Clavien-Dindo events  $\geq$  Grade III occurred.

CONCLUSIONS

Rezum therapy is safe, effective, quick, out-patient procedure for prostate glands over a wide range of volumes.

| Characteristic               | Mean (SD) or n (%) |
|------------------------------|--------------------|
| Age, years                   | 67.3 (9.7)         |
| Prostate volume, mL          | 71.5 (30.4)        |
| PSA, ug/L                    | 4.7 (7.5)          |
| Median lobe                  | 126 (55%)          |
| Duration of BPH              |                    |
| <5 years                     | 73 (32%)           |
| 5-7 years                    | 67 (29%)           |
| 8-10 years                   | 33 (14%)           |
| >10 years                    | 56 (24%)           |
| Current BPH medication       |                    |
| Alpha-blocker                | 153 (67%)          |
| 5ARI                         | 58 (25%)           |
| Cialia/Viagra                | 37 (16%)           |
| None                         | 57 (25%)           |
| History of urinary retention | 39 (17%)           |

Table 1: Baseline Characteristics

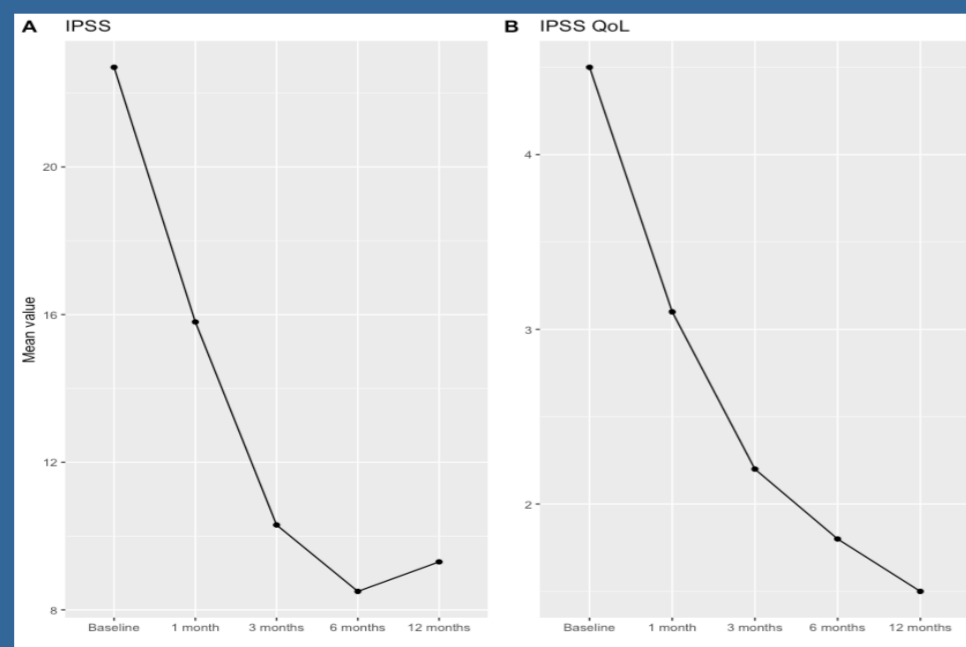


Fig 1: IPSS and IPSS QoL scores over time

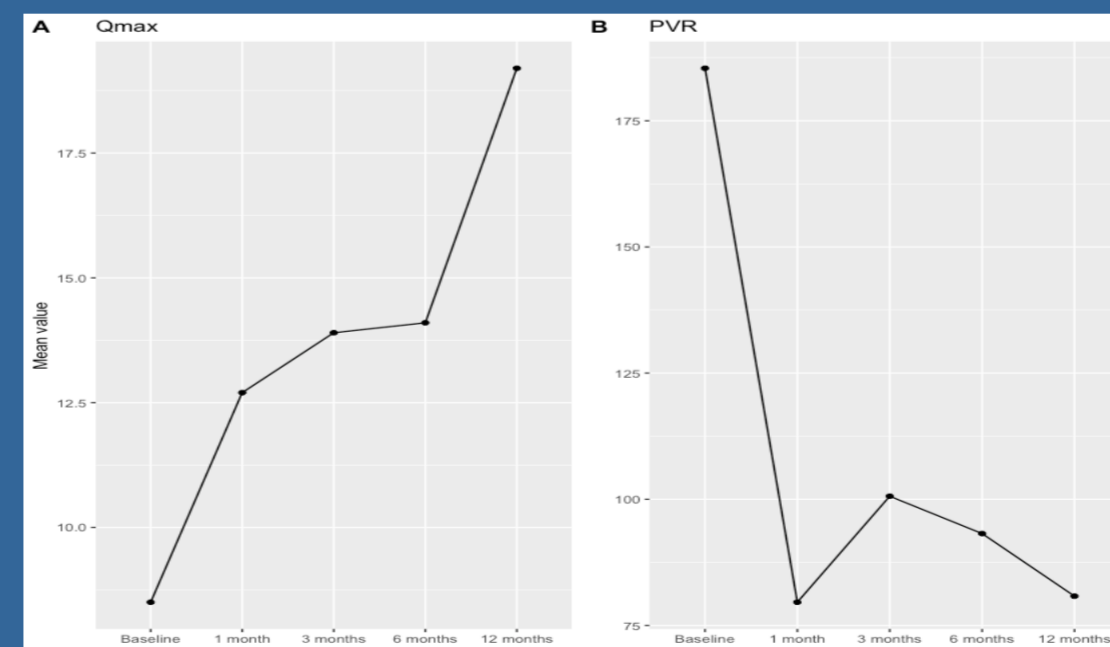


Fig 2: Qmax and PVR over time

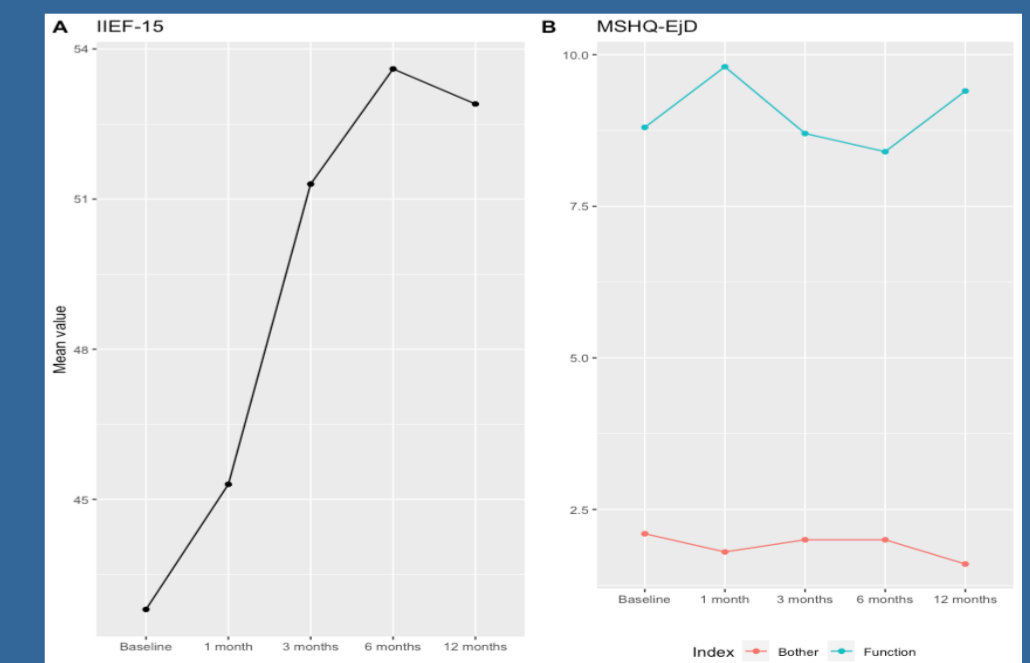


Fig 3: IIEF-15 and MSHQ over time