**Supplementary Table 1 | Clinical features of patients with BPH and PCa.**

| Characteristic                    | PCa n=33  | BPH n=15 | P-value |
|-----------------------------------|-----------|----------|---------|
| Age (year), median (range)        | 78 (74.5, 82.5) | 71 (65, 78) | **0.0162** |
| PSA (ng/mL), median (range)       | 56.00 (26.26, 260.20) | 17.60 (8.48, 40.00) | **0.0016** |
| Smoking status                    |           |          | 0.2096  |
| Yes, n (%)                        | 2 (6.1)   | 1 (6.7)  |         |
| No, n (%)                         | 25 (75.8) | 14 (93.3)|         |
| Unknown, n (%)                    | 6 (18.2)  | 0 (0.0)  |         |
| Hypertension                      |           |          | 0.5240  |
| Yes, n (%)                        | 12 (36.4) | 8 (53.3) |         |
| No, n (%)                         | 17 (51.5) | 6 (40.0) |         |
| Unknown, n (%)                    | 4 (12.1)  | 1 (6.7)  |         |
| Diabetes Mellitus                 |           |          | 0.8476  |
| Yes, n (%)                        | 4 (12.1)  | 2 (13.3) |         |
| No, n (%)                         | 25 (75.8) | 12 (80.0)|         |
| Unknown, n (%)                    | 4 (12.1)  | 1 (6.7)  |         |
| Symptoms                          |           |          | 0.1773  |
| LUTS, n (%)                       | 9 (27.3)  | 9 (60.0) |         |
| Hematuria, n (%)                  | 4 (12.1)  | 1 (6.7)  |         |
| Other symptoms, n (%)             | 6 (18.2)  | 0 (0.0)  |         |
| Asymptomatic, n (%)               | 10 (30.3) | 4 (26.7) |         |
| Unknown, n (%)                    | 4 (12.1)  | 1 (6.7)  |         |
| Laboratory test                   |           |          |         |
| Hemoglobin                        |           |          | 0.1165  |
| Anemia (<120g/L), n (%)           | 6 (18.2)  | 0 (0.0)  |         |
| Normal, n (%)                     | 22 (66.7) | 14 (93.3)|         |
| Unknown, n (%)                    | 5 (15.2)  | 1 (6.7)  |         |
| Creatin                           |           |          | 0.3089  |
| High (>137μmol/L), n (%)          | 3 (9.1)   | 0 (0.0)  |         |
| Normal, n (%)                     | 25 (75.8) | 14 (93.3)|         |
| Unknown, n (%)                    | 5 (15.2)  | 1 (6.7)  |         |
| Albumin                           |           |          | 0.3760  |
| Low (<40g/L), n (%)               | 4 (12.1)  | 4 (26.7) |         |
| Normal, n (%)                     | 24 (72.7) | 10 (66.7)|         |
| Unknown, n (%)                    | 5 (15.2)  | 1 (6.7)  |         |
| Fasting blood glucose             |           |          | 0.1909  |
| High (>6.1mmol/L), n (%)          | 4 (12.1)  | 5 (33.3) |         |
| Low (<3.9mmol/L), n (%)           | 0 (0.0)   | 0 (0.0)  |         |
| Normal, n (%)                     | 24 (72.7) | 9 (60.0) |         |
| Unknown, n (%)                    | 5 (15.2)  | 1 (6.7)  |         |
| Microscopic hematuria             |           |          | 0.2465  |
| Yes, n (%)                        | 11 (33.3) | 2 (13.3) |         |
Contingency tables were analyzed using the chi-square test. Numerous data chosen from the normal population were analyzed using Student’s $t$-test. Numerous data that were not chosen from the normal population were analyzed using the Mann-Whitney test. BMI, body mass index; BPH, Benign prostatic hyperplasia; LUTS, lower urinary tract symptoms; n, number of cases; PCa, prostate cancer; PSA, prostate-specific antigen.