

# HUBUNGAN ANTARA *BODY MASS INDEX* (BMI) DAN KADAR SERUM *PROSTATE SPECIFIC ANTIGEN* (PSA) TERHADAP GAMBARAN HISTOPATOLOGI *BENIGN PROSTATIC HYPERPLASIA* (BPH) DI RSPAD GATOT SOEBROTO PADA TAHUN 2021-2022

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Abstrak

**Pendahuluan:** *Benign Prostatic Hyperplasia* (BPH) terjadi karena adanya proliferasi jaringan epitel dan stroma prostat. Proliferasi jaringan tersebut dapat membuat kadar *Prostatic Spesific Antigen* (PSA) naik. BPH dapat menyebabkan terjadinya hambatan aliran urine, sehingga pasien akan merasakan keluhan pada saluran kemih bagian bawah atau *Lower Urinary Tract Symptom* (LUTS). Etiologi BPH belum pasti, namun faktor resiko seperti kenaikan berat badan dikaitkan dengan penyakit ini. Status berat badan dapat dihitung menggunakan parameter *Body Mass Index* (BMI). Tujuan penelitian ini adalah untuk mengetahui hubungan BMI dan kadar serum PSA dengan gambaran histopatologi BPH di RSPAD Gatot Soebroto pada tahun 2021-2022. **Metode:** Jenis penelitian adalah analitik observasional. Sampel diambil menggunakan teknik total sampling di bagian departemen Patologi Antomi dan Rekam Medis RSPAD Gatot Soebroto. Penelitian dilaksanakan dari bulan Mei sampai Juni 2023 dengan jumlah sampel adalah 40 orang. Data yang digunakan adalah umur, pemeriksaan berat badan, tinggi badan, kadar serum PSA, dan histopatologi pada rekam medis pasien BPH. Data yang sudah dikumpulkan kemudian dianalisis dengan program komputer. **Hasil:** Hasil penelitian menunjukkan bahwa hasil p-value kadar serum PSA dengan gambaran histopatologi adalah 0.020 dengan gambaran proliferasi epitel (lumen kistik disertai agregat) dan stroma, sedangkan hasil p-value BMI dengan gambaran histopatologi adalah 0.679. **Kesimpulan:** Pada penelitian ini terdapat hubungan bermakna antara kadar serum PSA dengan gambaran histopatologi BPH dan hubungan tidak bermakna antara BMI dengan gambaran histopatologi BPH.

**Kata kunci:** *Benign Prostatic Hyperplasia*, *Body Mass Index* (BMI), Histopatologi BPH, Kadar Serum *Prostate Spesific Antigen* (PSA)

**THE RELATIONSHIP BETWEEN BODY MASS INDEX (BMI)  
AND SERUM PROSTATE SPECIFIC ANTIGEN (PSA) LEVELS  
ON THE HISTOPATHOLOGICAL PICTURE OF BENIGN  
PROSTATIC HYPERPLASIA (BPH) AT RSPAD GATOT  
SOEBROTO IN 2021-2022**

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**Abstract**

**Introduction:** Benign Prostatic Hyperplasia (BPH) occurs due to excessive proliferation of epithelial and stromal tissues in the prostate. This tissue proliferation can cause an increase in serum Prostate Specific Antigen (PSA) levels. BPH can lead to urinary flow obstruction, resulting in lower urinary tract symptoms (LUTS) in patients. The etiology of BPH is not yet fully understood, but risk factors such as weight gain have been associated with the disease. Body Mass Index (BMI) can be used as a measure of weight status. The aim of this study was to determine the relationship between BMI, serum PSA levels, and histopathological findings of BPH at RSPAD Gatot Soebroto in the years 2021-2022. **Methods:** This study utilized an analytical observational design. Samples were obtained using total sampling technique from the Pathology Anatomy and Medical Records Department of RSPAD Gatot Soebroto. The study was conducted from May to June 2023, with a sample size of 40 individuals. The data collected included age, weight measurement, height measurement, serum PSA levels, and histopathological findings from the medical records of BPH patients. The collected data were analyzed using computer software. **Results:** The results of the study showed a p-value of 0.020 for the association between serum PSA levels and histopathological findings, specifically epithelial proliferation (cystic/non-cystic luminal proliferation) and stroma. However, the p-value for the association between BMI and histopathological findings was 0.679, indicating no significant relationship. **Conclusion:** This study found a significant association between serum PSA levels and histopathological findings of BPH, while no significant relationship was found between BMI and histopathological findings of BPH.

**Keywords:** Benign Prostatic Hyperplasia (BPH), Body Mass Index (BMI), Histopathology of BPH, Serum Prostate-Specific Antigen (PSA) level