

## INTISARI

Povidone iodine (PVP-I) merupakan kompleks iodine berfungsi sebagai antiseptik yang mampu membunuh mikroorganisme seperti bakteri, jamur, virus, protozoa dan spora. PVP-I efektif menghambat berbagai marker infeksi dan famili sitokin pada penderita infeksi jaringan lunak. Tujuan penelitian adalah mengetahui kadar iNOS pada penderita gingivitis sedang dan berat sebelum dan sesudah pemberian obat kumur povidone iodine 1% dan membandingkan kadar iNOS pada penderita gingivitis sedang dan berat.

Jenis penelitian yang digunakan pada penelitian ini adalah eksperimental murni laboratorik untuk mengukur kadar iNOS penderita gingivitis sedang dan berat. Rancangan penelitian adalah *one group pre test – post test design*. Sampel penelitian berupa cairan sulkus gingiva yang didapat dari penderita gingivitis sedang dan berat yang berkunjung ke klinik Periodontika RSGM Prof. Soedomo. Semua sampel saliva diukur kadar iNOS dengan reagent anti-iNOS menggunakan ELISA kit. Pengukuran dilakukan dengan alat *BioRad microplate reader* dengan OD 450.

Hasil penelitian menunjukkan terjadi penurunan kadar iNOS setelah diberi perlakuan dengan PVP-I 1% pada penderita gingivitis sedang dan berat ( $P=0,000$ ). Kadar iNOS pada penderita gingivitis berat lebih tinggi dibandingkan penderita gingivitis sedang ( $P=0,006$ ).

Kesimpulan, kadar iNOS penderita gingivitis sedang berbeda dengan kadar iNOS penderita gingivitis berat baik sebelum dan sesudah pemberian obat kumur povidone iodine 1%. Penderita gingivitis berat mempunyai kadar iNOS yang lebih tinggi dibandingkan penderita gingivitis sedang.

**Kata kunci:** gingivitis sedang dan berat, kadar iNOS, povidone iodine 1%.

## ABSTRACT

Povidone iodine (PVP-I) is a complex of iodine which function as an antiseptic that kills microorganisms such as bacteria, fungi, viruses, protozoa and spores. PVP-I drugs effectively inhibit various markers of infection and also the families of cytokines in patients with human soft tissue infections. The research objective was to determine the levels of iNOS in patients with moderate and severe gingivitis before and after administration of povidone iodine gargle 1% and to compare the levels of iNOS between patients with moderate and severe gingivitis.

Pure experimental laboratory was confirmed in this study to measure the levels of iNOS patients with moderate and severe gingivitis. Gingival sulcus liquid of patients with moderate and severe gingivitis visiting to Periodontics clinic, Prof. Soedomo hospital was collected in Eppendorf tube 1.5 ml. All saliva samples were measured with ELISA kit for detecting the levels of iNOS. Measurements were done by a BioRad microplate reader at OD 450.

The results showed the levels of iNOS after being treated with PVP-I 1% was significantly decreased in patients with moderate and severe gingivitis ( $P = 0.000$ ). iNOS levels in patients with severe gingivitis was markedly higher compared to patients with moderate gingivitis before given PVP-I 1% ( $P = 0.006$ ).

In conclusion, iNOS levels of moderate and severe gingivitis patients before and after administration of PVP-I 1% were different. Patient with severe gingivitis had iNOS levels higher than moderate gingivitis.

**Keywords:** moderate and severe gingivitis, the levels of iNOS, povidone iodine 1% (PVP-I 1%).