ABSTRAK

HUBUNGAN KADAR UREA SALIVA DAN KADAR FERITIN SERUM TERHADAP KARIES GIGI PASIEN THALASEMIA BETA MAYOR USIA 12-17 TAHUN

(Penelitian *Cross Sectional* di RSUD Banyumas)

Iftahlanahikmah Erosputri

Pasien anak thalasemia beta mayor memiliki risiko tinggi mengalami karies gigi, yang berkaitan dengan gangguan fungsi saliva dan akumulasi besi. Karies gigi pada pasien thalasemia terjadi karena adanya komponen organik saliva yaitu urea yang berkaitan dengan pH dan berperan dalam penghambatan karies gigi. Kejadian karies gigi dinilai berhubungan dengan anemia defisiensi zat besi yang berkaitan dengan kadar feritin serum. Penelitian bertujuan untuk mengetahui hubungan kadar urea saliva dan kadar feritin serum dengan karies gigi pasien thalasemia beta mayor. Penelitian *cross-sectional study* dilakukan pada 70 pasien thalasemia beta mayor usia 12-17 tahun di Instalasi Pelayanan Thalasemia Terpadu RSUD Banyumas. Kadar urea saliva diukur dengan metode *spektrofotometer Uv-vis*, kadar feritin serum diperoleh dari rekam medis, dan karies gigi dinilai dengan indeks DMF-T. Analisis statistik dilakukan dengan uji korelasi bivariat *Pearson.* Rerata kadar urea saliva adalah 2,337 mg/dl (lebih rendah dari normal); rerata kadar feritin serum 4509 ng/ml (lebih tinggi dari normal); dan rerata indeks DMF-T karies gigi pasien thalasemia beta mayor yaitu 7,47 (kategori sangat tinggi). Terdapat korelasi negatif yang signifikan antara kadar urea saliva dengan skor DMF-T (r= -0,287; p=0,016) dan korelasi positif yang signifikan antara kadar feritin serum dengan skor DMF-T (r= 0,262; p=0,029). Kadar urea saliva yang rendah dan kadar feritin serum yang tinggi berhubungan dengan karies gigi yang tinggi pada pasien thalasemia beta mayor. Temuan ini menekankan perlunya evaluasi rutin kadar urea saliva dan kadar feritin serum serta upaya preventif karies gigi terhadap populasi anak thalasemia beta mayor.

Kata Kunci :, Anak-anak, kadar urea saliva, kadar feritin serum, karies gigi, thalasemia beta mayor

ABSTRACT

RELATIONSHIP BETWEEN SALIVARY UREA LEVELS AND SERUM FERRITIN LEVELS ON DENTAL CARIES OF BETA THALASSEMIA MAJOR PATIENTS AGED 12-17 YEARS

(Cross Sectional Research at RSUD Banyumas)

Iftahlanahikmah Erosputri

Patients with beta-thalassemia major have a high risk of dental caries, which associated with salivary dysfunction and iron accumulation. Dental caries in thalassemia patients occur due to organic saliva components such as urea, which is related to pH inhibiting dental caries. Dental caries is also associated with iron-deficiency anemia, which correlates with serum ferritin levels. The study aimed to determine the relationship between salivary urea levels and serum ferritin levels with dental caries in patients with beta-thalassemia major. A cross-sectional study was conducted on 70 patients with beta-thalassemia major aged 12-17 years in RSUD Banyumas. Salivary urea levels were measured using UV-visible spectrophotometer method, serum ferritin levels were obtained from medical records, and dental caries were assessed using the DMF-T index. Statistical analysis was performed using Pearson's bivariate correlation test. The mean salivary urea level was 2.337 mg/dl (lower than normal); the mean serum ferritin level was 4509 ng/ml (higher than normal); and the mean DMF-T index for dental caries in patients with beta-thalassemia major was 7.47 (very high category). There was a significant negative correlation between salivary urea levels and DMF-T score (r= -0.287; p=0.016) and a significant positive correlation between serum ferritin levels and DMF-T score (r= 0.262; p=0.029). Low salivary urea levels and high serum ferritin levels are associated with high dental caries in patients with beta-thalassemia major. These findings emphasize the need for routine evaluation of salivary urea levels and serum ferritin levels as well as preventive efforts for dental caries in the population of children with beta-thalassemia major.

Keyword : *Children, dental caries, salivary urea levels, serum ferritin levels, thalasemia beta major*