

ABSTRAK

HUBUNGAN KEBERSIHAN RONGGA MULUT DENGAN KADAR *SUPEROXIDE DISMUTASE (SOD)* PADA ANAK DAN REMAJA *DOWN* *SYNDROME* DI KABUPATEN BANYUMAS

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Down syndrome merupakan suatu keterbelakangan perkembangan fisik dan mental yang disebabkan oleh abnormalitas kromosom 21 berakibat stres oksidatif diekspresikan berlebih. Keterbatasan pada anak *down syndrome* membuat tingkat kebersihan rongga mulut (*oral hygiene*) yang rendah. *Oral hygiene* yang buruk memacu untuk adanya inflamasi, dan berakibat tubuh memproses antioksidan endogenus salah satunya *superoxide dismutase (SOD)*. Penelitian ini bertujuan untuk mengetahui hubungan kebersihan rongga mulut terhadap kadar SOD pada anak dan remaja *down syndrome* di Kabupaten Banyumas. Jenis penelitian berupa observasi analitik dengan desain *cross sectional* dan menggunakan metode *total sampling* untuk mendapatkan responden sebanyak 23 *down syndrome* (8-22 tahun) yang bersekolah di SLB C dan C1 YAKUT Purwokerto, serta SLB ABCD Kuncup Mas Banyumas. Pengumpulan saliva dilakukan dengan metode *spitting* sesudah bangun pagi selama 3 menit sebelum sarapan, dan diuji dengan spektrofotometri. Pada hari berikutnya dilakukan pemeriksaan kebersihan rongga mulut dengan metode OHI-S. Data hasil penelitian diuji dengan menggunakan uji *Spearman*. Hasil penelitian menunjukkan bahwa kebersihan rongga mulut memiliki hubungan dengan kadar SOD saliva pada anak *down syndrome* ($p < 0,05$, $C = 705$). Simpulan penelitian ini adalah kebersihan rongga mulut yang buruk pada *down syndrome* diikuti dengan tingginya kadar *superoxide dismutase (SOD)*.

Kata kunci: *down syndrome*, kebersihan rongga mulut, dan *Superoxide Dismutase (SOD)*

Kepustakaan: 57 (1995-2019)

ABSTRACT

THE RELATION OF ORAL HYGIENE STATUS AND SUPEROXIDE DISMUTASE (SOD) LEVELS IN CHILDREN AND TEENS DOWN SYNDROME IN BANYUMAS DISTRICT

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Down syndrome is a physical and mental development retardation caused by chromosome 21 abnormalities resulting in overexpressed oxidative stress. Limitations in children with Down syndrome make the level of oral hygiene low. Poor oral hygiene due to inflammation, and results in superoxide dismutase (SOD), one of the original. This research is to study the relationship of oral hygiene to SOD levels in children and adolescents with Down Syndrome in Banyumas Regency. This type of research is analytic observation with cross sectional design and uses total sampling method to get respondents as many as 23 down syndrome (8-22 years) who attend SLB C and C1 YAKUT Purwokerto, and SLB ABCD Kuncup Mas Banyumas. Saliva collection is carried out by the method of spitting up early for 3 minutes before breakfast, and praising with spectrophotometry. On the following day the oral hygiene was inspected using the OHI-S method. Research data using the Spearman test. The results showed that oral hygiene had a relationship with salivary SOD levels in children with Down syndrome ($p < 0.05$, $C = 705$). The conclusion of this study is poor oral cavity in descending syndrome followed by high levels of superoxide dismutase (SOD).

Key word: *down syndrome, oral hygiene, Superoxide Dismutase (SOD)*

Reference: 57 (1995-2019)