

INTISARI

**REYGALIAN NOVALITA PURBANINTYAS
POLA KADAR *PROLINE RICH PROTEIN (PRP)* PADA SALIVA ANAK
DAN REMAJA *DOWN SYNDROME* RENTANG USIA 8-24 TAHUN**

Saliva merupakan cairan yang terdapat dalam rongga mulut. Pada saliva terdapat kandungan protein, salah satunya adalah *Proline Rich Protein (PRP)*. *Proline Rich Protein (PRP)* mempunyai fungsi salah satunya untuk mencegah terjadinya karies. Pada beberapa penelitian, terdapat perbedaan hasil konsentrasi *Proline Rich Protein (PRP)* antara individu dengan *down syndrome* dan *non down syndrome*. Tujuan penelitian ini adalah untuk mengetahui adanya perbedaan pola dan kadar *Proline Rich Protein (PRP)* pada anak dan remaja *down syndrome* dan *non down syndrome* usia 8-24 tahun. Jenis penelitian ini adalah observasional analitik dengan pendekatan *cross sectional* dan menggunakan 14 individu *down syndrome* dan 14 individu *non down syndrome* rentang usia 8-24 tahun yang dibagi kelompok menurut masing-masing usia. Kelompok *down syndrome* dipilih dengan metode *total sampling*, sedangkan untuk kelompok *non down syndrome* dengan metode *purposive sampling* dengan cara *matching* berdasarkan usia dan jenis kelamin. Data dianalisis uji *independent sample t-test* untuk melihat perbedaan kadar *Proline Rich Protein (PRP)* berdasarkan rentang usia 8-24 tahun. Hasil menunjukkan terdapat perbedaan pola kadar *Proline Rich Protein (PRP)* antara kelompok *down syndrome* usia 10 tahun cenderung tinggi dan kemudian berangsur turun hingga usia 16 tahun. Kadar *Proline Rich Protein (PRP)* kembali naik hingga usia 24 tahun, sedangkan pada kelompok *non down syndrome* pada usia 10 tahun mempunyai kadar lebih rendah dari *down syndrome*. Kadar tertinggi pada *non down syndrome* terdapat pada usia 16 tahun dan kembali menurun hingga usia 24 tahun. Hasil uji *independent sample t-test* menunjukkan nilai $P > 0,05$. Hal ini menunjukkan kadar *Proline Rich Protein (PRP)* tidak berbeda secara signifikan. Berdasarkan hasil penelitian dapat disimpulkan terdapat perbedaan pola kadar *Proline Rich Protein (PRP)* pada anak *down syndrome* dan *non down syndrome* menurut kelompok usia, sedangkan kadar *Proline Rich Protein (PRP)* berdasarkan rentang usia 8-24 tahun antara individu *down syndrome* dan *non down syndrome* tidak terdapat perbedaan yang signifikan.

Kata Kunci : *down syndrome*, saliva, usia, *Proline Rich Protein (PRP)*.
Kepustakaan : 50 (1990-2018)

ABSTRACT

**REYGALIAN NOVALITA PURBANINTYAS
PATTERNS OF SALIVARY PROLINE RICH PROTEIN (PRP)
CONCENTRATION IN CHILDREN AND TEENAGER WITH DOWN'S
SYNDROME BETWEEN AGES 8-24 YEARS**

Saliva is a liquid that found in the oral cavity. One of content of saliva is Proline Rich Protein (PRP). Proline Rich Protein (PRP) has a function to prevent caries. In some studies, there are differences in the results of Proline Rich Protein (PRP) concentrations between individuals with down's syndrome and without down's syndrome. This research aimed to determine the differences in the pattern and concentration of salivary Proline Rich Protein (PRP) in children and teenagers with Down's Syndrome and without Down's Syndrome between 8-24 years old. This research used analitic observational method with cross sectional approach. The number of samples study were 14 subject who were divided into the groups of children and teenagers with down's syndrome and without down's syndrome. The samples of down's syndrome were selected by the total sampling method, while for the samples of non-down's syndrome were selected by matching purposive sampling method. Data analyzed by independent sample t-test to determine the salivary Proline Rich Protein (PRP) concentration. The results indicated that Proline Rich Protein (PRP) concentration was higher in the youngest subjects with down's syndrome (10-years-old) than in the other groups, decreased until 1,2 ng/ml at 16-years-old, but slightly increase at 24-years-old (3,49 ng/ml). The non down's syndrome group showed the different pattern of proline rich protein. The concentration in subjects without down's syndrome were increased after 10-years-old and reached the higher concentration in 16-years-old (8,22 ng/ml). The concentration were decreased after 16-years-old in subjects without down's syndrome and showed the minimum concentration in the 24-years-old. Independent sample t-test showed there was no difference in salivary proline rich protein (PRP) concentration ($p>0,05$). This research had a summary that there were differences in the pattern and there was no difference in concentration of salivary Proline Rich Protein (PRP) in subjects with down's syndrome and without down's syndrome.

*Keywords : down syndrome, saliva, age, proline rich protein
References : 50 (1990-2018)*