

INTISARI

Sindroma Down merupakan kelainan genetik yaitu adanya kromosom ekstra pada kromosom 21. Gangguan sistem imun pada anak sindroma Down menyebabkan kejadian infeksi meningkat. Infeksi karies gigi dapat memicu keluarnya sIgA saliva. Perawatan pada gigi yang mengalami karies dapat dilakukan melalui restorasi gigi. Penelitian ini bertujuan untuk mengetahui perubahan kadar sekretori immunoglobulin A (sIgA) saliva sebelum dan setelah restorasi semen ionomer kaca pada anak sindroma Down usia 12 – 14 tahun.

Jenis penelitian ini adalah penelitian eksperimental semu. Subjek penelitian adalah 16 anak sindroma Down yang bersekolah di SLB N 1 Bantul dan SLB N 1 Yogyakarta. Dilakukan restorasi menggunakan bahan semen ionomer kaca pada subjek penelitian. Kadar sIgA saliva diukur sebelum dan setelah dilakukan restorasi. Dilakukan uji *paired t test* untuk mengetahui perubahan sIgA saliva sebelum dan setelah restorasi semen ionomer kaca.

Hasil penelitian menunjukkan bahwa rerata kadar sIgA saliva pada anak sindroma Down sebelum restorasi semen ionomer kaca sebesar 1,44 η g/mL menurun menjadi 0,90 η g/mL setelah restorasi semen ionomer kaca. Hasil uji dengan menggunakan uji statistik *paired t test* menunjukkan terdapat perubahan signifikan ($p = 0,000$). Berdasarkan penelitian tersebut, dapat disimpulkan bahwa Kadar sekretori Immunoglobulin A (sIgA) saliva setelah restorasi Semen Ionomer Kaca lebih rendah dibanding kadar sekretori Immunoglobulin A (sIgA) saliva sebelum restorasi.

Kata kunci: sindroma Down, restorasi semen ionomer kaca, sIgA saliva

ABSTRACT

Down syndrome is a genetic disorder caused by the presence of extra chromosome on chromosome 21. Immune system disorders in Down syndrome children increase infection occurrence. Dental caries infection will trigger the release of salivary sIgA. Dental caries treatment can be done through dental restoration. The objective of this research was to determine the changes in secretory immunoglobulin A (sIgA) levels in saliva before and after Glass Ionomer Cement (GIC) restoration in 12 – 14 years old Down syndrome children.

This research was a quasi experimental. The subjects of research were sixteen Down syndrome children at Sekolah Luar Biasa (SLB) Negeri 1 Bantul and SLB Negeri 1 Yogyakarta. Dental treatment to the subjects were carried out by restoration using GIC materials. Secretory immunoglobulin A levels in saliva were measured before and after restoration. Paired t test was also performed to identify the changes of salivary sIgA before and after GIC restoration.

The research showed that the average sIgA level in saliva of Down syndrome children before GIC restoration was 1.44 ng/mL, decreased to 0.90 ng/mL after GIC restoration. There were significant changes in sIgA levels between before and after GIC restoration ($p = 0,000$) based on statistical test of paired t test result. Based on the research, it could be concluded that the sIgA levels in saliva after GIC restoration are lower than sIgA level in saliva before GIC restoration.

Keywords: Down syndrome, glass ionomer cement restoration, sIgA levels in saliva