ABSTRAK

Mengkonsumsi makanan yang kariogenik dapat menyebabkan penyakit karies akibat proses demineralisasi kalsium. Pencegahan karies gigi dapat dibantu dengan mengkonsumsi minyak ikan ikan kembung yang mengandung asam lemak omega-3, omega-6, dan vitamin yang baik bagi tubuh.Penelitian ini bertujuan untuk mengetahui efektifitas pemberian minyak omega-3 ikan kembung terhadap densitas enamel gigi pada tikus putih *Rattus Norvegicus*.

Jenis penelitian eksperimental dengan rancangan *Randomized Post Test Only Control Group Design*. Subjek penelitian sebanyak 20 anakan tikus yang diambil dari 6 tikus betina hamil dibagi menjadi 2 kelompok yaitu kelompok perlakuan dengan pemberian minyak omega-3 ikan kembung sebanyak 1ml/200 mgBB dan kelompok kontrol yang diberi aquadest, pemberian dilakukan selama masa kandungan sampai gigi anakan tikus tumbuh. Kemudian tikus dieustanasia untuk pengambilan gigi tikus dan dilakukan pengamatan kepadatan enamel gigi. Data yang didapatkan dianalisis dengan *Levene* dan dilanjutkan dengan uji *Man-Whitney.*

Hasil penelitian didapatkan rata-rata densitas enamel gigi kelompok perlakuan sebesar 1155.18340 dan rata-rata densitas enamel gigi kelompok kontrol sebesar 175.91640. Berdasarkan uji perbandingan menggunakan *Mann-Whitney* antara kedua kelompokdidapatkan bahwa terdapat perbedaan yang signifikan densitas enamel gigi tikus putih *Rattus Noevegicus* ($p<0,05$).

Kesimpulan dari hasil penelitian yaitu pemberian minyak omega-3 ikan kembung dapat meningkatkan densitas enamel gigi tikus *Rattus Norvegicus*.

Kata kunci: omega-3, ikan kembung, densitas enamel gigi

ABSTRACT

Consuming cariogenic foods can cause caries due to the process of calcium demineralization. Prevention of dental caries can be helped by consuming mackerel fish oil that contains fatty acidsomega-3, omega-6, and vitamins that are good for the body. The study aimed to determine the effectiveness of giving omega-3 mackerel oil to tooth enamel density in white rat Rattus Norvegicus.

Research method was experimental with randomized post test only control group design. Sample used 20 rats taken from 6 pregnant female rats divided into 2 groups, the treatment group by giving omega-3 mackerel oil as much as 1ml / 200 mgBB and the aquadest control group, the treatment is carried out during pregnancy until the teeth grow. When the teeth have grow, rats were euthanized for the extraction of rat teeth and tooth enamel density were observed. The data analyzed with Levene and continued with Man-Whitney.

The results showed that the average tooth enamel density of the treatment group was 1155,18340 and the control group was 175.91640. Based on Mann-Whitney test between the two groups, there were significant difference in tooth enamel density of Rattus Noevegicus's ($p < 0.05$).

The conclusion of the study was that giving omega-3 mackerel oil can increase the enamel density of rat teeth Rattus Norvegicus.

Keywords: *omega-3, mackerel, density of tooth enamel*