

Latar belakang: Hiperlipidemia merupakan salah satu faktor penyebab risiko penyakit kardiovaskular. Salah satu prediktor penyakit kardiovaskular yaitu indeks aterogenik plasma (IAP). Asupan nutrisi serat dari FiberCreme diyakini dapat memperbaiki profil lipid dan menurunkan nilai IAP. Namun, terapi nutrisi dapat direspon oleh varian genotip *APOA1* rs670 dan *APOA5* rs662799 sehingga menghasilkan efek yang berbeda. **Tujuan penelitian:** menganalisis respon varian genotip *APOA1* dan *APOA5* dengan konsumsi FiberCreme terhadap perubahan IAP. **Metode:** sebanyak 47 isolat DNA subjek hiperlipidemia yang telah diintervensi kukis FiberCreme selama 4 minggu lalu dianalisis genotip menggunakan metode PCR-RFLP. **Hasil:** konsumsi FiberCreme cenderung dapat menurunkan rerata nilai IAP tetapi tidak signifikan ($p>0,05$). Alel A setelah intervensi kukis FiberCreme protektif terhadap risiko penyakit kardiovaskular tetapi tidak signifikan secara statistik. Alel C setelah intervensi kukis FiberCreme protektif terhadap risiko penyakit kardiovaskular tetapi tidak signifikan secara statistik. **Kesimpulan:** kukis FiberCreme dapat menurunkan IAP pada subjek hiperlipidemia. Alel A setelah intervensi kukis FiberCreme menurunkan risiko penyakit kardiovaskular. Alel C setelah intervensi kukis FiberCreme menurunkan risiko penyakit kardiovaskular.

Kata kunci: Hiperlipidemia, FiberCreme, *APOA1* rs670, *APOA5* rs662799, IAP

ABSTRACT

Background: Hyperlipidemia is one of the factors contributing to the risk of cardiovascular disease. One of the predictors of cardiovascular disease is the atherogenic index plasma (AIP). Dietary fiber intake from FiberCreme is believed to improve lipid profiles and reduce AIP values. However, nutritional therapy can be influenced by *APOA1* rs670 and *APOA5* rs662799 genotype variants, resulting in different effects. **Research Objective:** To analyze the response of *APOA1* and *APOA5* genotype variants to FiberCreme consumption on changes in AIP. **Method:** A total of 47 DNA isolates from hyperlipidemia subjects who underwent FiberCreme cookie intervention for 4 weeks, then were genotyped using the PCR-RFLP method. **Results:** FiberCreme consumption led to a decrease in the mean AIP value, although it was not statistically significant ($p>0.05$). The A allele after FiberCreme cookie intervention showed a protective effect against the risk of cardiovascular disease but was not statistically significant. The C allele after FiberCreme cookie intervention also showed a protective effect against the risk of cardiovascular disease but was not statistically significant. **Conclusion:** FiberCreme cookies can reduce AIP in hyperlipidemia subjects. The A allele after FiberCreme cookie intervention decreases the risk of cardiovascular disease. The C allele after FiberCreme cookie intervention also decreases the risk of cardiovascular disease.

Key words: Hyperlipidemia, FiberCreme, *APOA1* rs670, *APOA5* rs662799, AIP