"POTENSI PROPOLIS TERHADAP PROGRESIVITAS ATEROSKLEROSIS PADA MODEL HEWAN HIPERKOLESTEROLEMIA: SYSTEMATIC REVIEW"

Az-Zahra Fathiya Ishbir Hikmata

Abstrak

Hiperkolesterolemia merupakan abnormalitas metabolisme lemak berupa kenaikan kadar koleterol total, LDL (*low density lipoprotein*), trigliserid, serta penurunan HDL (*high density lipoprotein*). Data Riskesdas mencatat persentase hiperkolesterolemia pada laki-laki dan perempuan sebesar 48% dan 54,3%. Abnormalitas kadar lipid ini memiliki risiko sebagai pencetus patogenesis dari aterosklerosis pembuluh darah. Pada beberapa penelitian sebelumnya, propolis ditemukan dapat menahan pembentukan aterosklerosis. **Metode:** Desain penelitian *Systematic Review* yang menggunakan metode PRISMA-P (*Preferred Reporting Items for Sytematics Reviews and Meta-Analysis Protocols*) 2015. Jurnal terpilih adalah penelitian yang membahas pengaruh pemberian propolis terhadap gambaran histopatologi progresivitas aterosklerosis. **Hasil**: Delapan jurnal yang digunakan membuktikan bahwa propolis memiliki efek sebagai antiaterosklerotik dengan memodulasi lipid, menahan proses inflamasi, dan menahan proses oksidasi LDL sehingga pembentukan aterosklerosis dapat dihambat. **Kesimpulan**: Propolis dengan bahan bahan seperti flavonoid dan ekstrak etanol propolis (EEP) dapat menghambat pembentukan aterosklerosis dengan berkurangnya ketebalan lesi, berkurangnya akumulasi lipid, turunnya konsentrasi kolesterol total, serta berkurangnya reaksi inflamasi sehingga mengurangi proliferasi dan migrasi dari sel otot polos yang ada pada tunika intima pembuluh darah.

Kata Kunci: *Anti-Aterosklerosis, Hiperkolesterolemia, Propolis*

"POTENTIAL OF PROPOLIS ON ATHEROSCLEROSIS PROGRESSION IN HYPERCHOLESTEROLEMIC ANIMAL MODELS: SYSTEMATIC REVIEW"

Az-Zahra Fathiya Ishbir Hikmata

Abstract

Hypercholesterolemia is a fat metabolism disorder characterized by elevated total cholesterol, LDL (low density lipoprotein), triglycerides, and decreased HDL (high density lipoprotein). According to Riskesdas data, men and women had a hypercholesterolemia rate of 48 percent and 54.3 percent, respectively. This lipid imbalance may act as a trigger for the development of atherosclerosis of the blood arteries. Many ways have been used in several attempts to prevent atherosclerosis, one of which is the use of propolis. In several previous studies, propolis was found to inhibit the formation of atherosclerosis. ***Methods****: The PRISMA-P (Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocols) 2015 approach was used to create a systematic review. The study discussed the effect of propolis treatment on the histological appearance of atherosclerosis progression in the selected journal.* ***Results****: Propolis has an antiatherosclerotic action by modifying lipids, stopping the inflammatory process, and slowing the LDL oxidation process, which prevents the formation of atherosclerosis, according to eight peer-reviewed articles.* ***Conclusion:*** *Flavonoids and propolis ethanol extract (EEP) inhibit the formation of atherosclerosis by reducing lesion thickness, lipid accumulation, total cholesterol concentration, and inflammatory reactions, thereby reducing smooth muscle cell proliferation and migration in the tunica intima of blood vessels.*

Keyword: *Antiatherosclerotic, Hypercholesterolemic, Propolis*