Efek permen propolis madu terhadap profil protein streptococcus mutans yang diisolasi dari saliva = The effect of propolis honey candy to the protein profile of streptococcus mutans isolated from saliva / Dewi Vasthi Manikmaya

Dewi Vasthi Manikmaya, author

Abstrak

ABSTRAK
Latar Belakang: S.mutans merupakan salah satu mikroorganisme paling
berpengaruh terhadap terjadinya karies gigi. Propolis, suatu zat resin yangdiproduksi oleh lebah memiliki aktivitas inhibitorik terhadap S.mutans.
Tujuan: Menganalisis efek permen propolis madu terhadap profil protein S.mutans yang diisolasi dari saliva.
Metode: Profil protein S.mutans dianalisis dengan metode SDS PAGE.

Hasil: Setelah mengonsumsi permen X dan permen madu frekuensi
ekspresi protein GbpA meningkat dan frekuensi ekspresi protein GtfB dan GbpB menurun. Setelah mengonsumsi permen propolis madu dan permen madu frekuensi ekspresi protein GbpC meningkat dan frekuensi ekspresi protein AgI/II dan GtfC menurun.

Kesimpulan: Terjadi perubahan profil protein S.mutans setelah pengonsumsian permen propolis madu, permen X dan permen madu.
Frekuensi ekspresi protein AgI/II, GtfC dan GbpA menurun sedangkan frekuensi ekspresi protein GtfB, GbpB, GbpC, GbpD meningkat setelah mengonsumsi permen propolis madu. Frekuensi ekspresi protein GtfB dan GbpB menurun sedangkan frekuensi ekspresi protein AgI/II, GtfD, GbpA, GbpC meningkat setelah mengonsumsi permen X. Frekuensi ekspresi protein AgI/II, GtfB, GtfC, GbpB, GbpC dan GbpD menurun sedangkan frekuensi ekspresi protein GbpA meningkat setelah mengonsumsi permen madu. Permen X dan pemen madu memiliki efek yang mirip dalam mengubah profil protein S.mutans. Sedangkan permen propolis madu memiliki efek yang berbeda.
<hr>
ABSTRACT
Background: S.mutans is one of the most influential microorganism on dental caries development. Propolis, a resin produced by bees, has a strong inhibitoric activity on S.mutans growth.

Objective: To analyze the effect of propolis honey candy to S.mutans protein profile isolated from saliva.

Method: S.mutans protein profile was analyzed by SDS PAGE method. Results: After X candy and honey candy consumption, GbpA protein expression frequency increased, GbpB and GtfB protein expression frequency decreased. After propolis honey candy and honey candy consumption, GbpC protein expression frequency increased, AgI/II
and GtfC protein expression frequency decreased.

Conclussion: S.mutans protein profile was altered after propolis honey candy, X candy and honey candy consumption. AgI/II, GtfC, GbpA protein expression frequency decreased while GtfB, GbpB, GbpC, GbpD protein expression frequency increased after propolis
honey candy consumption. GtfB, GbpB protein expression frequency decreased while AgI/II, GtfD, GbpA, GbpC protein expression frequency increased after X candy consumption. AgI/II, GtfB, GtfC, GbpB, GbpC, GbpD protein expression frequency decreased and GbpA protein expression frequency increased after honey candy consumption. X candy and honey candy have similar effect in altering S.mutans protein, while propolis honey candy has different effect.