



Abstract

Background: Cracked heels is the condition wheres fissure on the stratum corneum layer of the heels. This condition got worst during with the risk factor just like elasticity, age, body weight. The correlation between blood glucose and the level of cracked heels have not been determined.

Aim: To determine the correlation between blood glucose and severity degree of fissures on cracked heels.

Methods: This study used cross-sectional design with observational analytic. Blood glucose was measured using *Glucose Level Test*. The severity of fissures on cracked heels was assessed using fissure severity assessment scoring. The scoring was remade from the original cracked heels scoring by the dermatologist team of Dermatology Section of the Faculty of Medicine, Gadjah Mada University, Yogyakarta.

Results: The result was obtained from 56 subjects, 22 (39,3%) people had suffers 2nd degree; 11 (19,6%) people suffers 3rd degree; 17 (30,4%) people suffers 4th degree; and 6 (10,7%) people suffers 5th degree of cracked heels. The analysis showed that blood glucose was correlated with the severity degree of fissures on cracked heels ($r=0.342; p<0,010$).

Conclusions: there is a low positive correlation between blood glucose and severity of blood glucose degree at fissures and cracked heels.

Keywords: Blood glucose, heel fissures, cracked heels, fissure



Intisari

Latar Belakang: Tumit retak merupakan kondisi dimana terjadi keretakan lapisan stratum corneum pada bagian tumit. Kondisi ini diketahui diperparah dengan tingginya kadar glukosa dalam darah. Korelasi antara derajat keparahan tumit retak dengan kadar glukosa dalam darah belum pernah diteliti.

Tujuan: Untuk menentukan korelasi antara kadar gula darah dan derajat keparahan fisura pada tumit retak.

Metode: Penelitian ini menggunakan *cross-sectional* dengan analitik observasional. Kadar gula darah diukur dengan menggunakan *Glukose Level Test*. Tingkat keparahan fisura pada tumit retak dinilai menggunakan skor derajat keparahan fisura. Skor tersebut dibuat ulang dari skoring asli derajat keparahan fisura oleh tim dokter kulit Bagian Dermatologi Fakultas Kedokteran, Universitas Gadjah Mada, Yogyakarta.

Hasil: Hasil penelitian diperoleh dari 56 subyek, 22 (39,3%) orang menderita derajat 2; 11 (19,6%) orang menderita derajat 3; 17 (30,4%) orang menderita derajat 4; dan 6 (10,7%) orang menderita derajat 5 pada tumit retak. Hasil analisis menunjukkan bahwa kadar gula darah berkorelasi lemah dengan tingkat keparahan fisura pada tumit retak ($r = 0.342$, $p < 0,010$)

Kesimpulan: Gula darah dan derajat keparahan fisura pada tumit retak terbukti memiliki korelasi positif berkekuatan lemah.

Kata kunci: kadar gula darah, fisura tumit, tumit retak, fisura.