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Comparison of the Accuracy of Digital Image-based and Patient Visit-based Diagnoses in Dermatological Diseases in Kerman medical university

Abstract

Introduction: Teledermatology as one of the Telemedicine applications is used in the diagnosis and treatment of skin diseases. The aim of this cross-sectional study was to compare the accuracy of skin disease diagnosis based on patient's history and lesions' images with that made in face to face visit as the gold standard and also to determine Kappa agreement coefficient between these two types of diagnostic method.

Methods: A total of 91 patients were enrolled in the study. Patients' identifying features and medical history were recorded at admission and lesions' images were taken with a standard method. Then patients were referred to a dermatologist to put his diagnosis on the disease. About two months later the same dermatologist was asked to put his diagnosis based on the patients' recorded medical history and digital images of the lesions. Then the two diagnoses were compared and Kappa coefficient was calculated. Data analysis was performed through SPSS software package.

Results: The correlation rate of diagnoses was 84.6 and kapa coefficient was calculated as 0.77

Conclusion: The diagnosis of dermatological disease based on just patient's medical history and digital images of skin lesions has a high rate of accuracy and it can be confidently recommended for tele-dermatology purposes in Iran.

Keywords: Diagnostic agreement coefficient, Teledermatology, Kappa coefficient