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Demodex mites in acne rosacea: reflectance confocal microscopic study.

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ABSTRACT

BACKGROUND/OBJECTIVES: Demodex mite density is emphasised in the aetiopathogenesis of acne rosacea. Reflectance confocal microscopy (RCM) has been shown to be a good method for determining demodex mite density. The objective was to determine demodex mite density using RCM in acne rosacea patients and compare them with controls. **METHODS:** In all, 30 papulopustular rosacea (PPR) and 30 erythematotelangiectatic rosacea (ETR) totally 60 acne rosacea patients and 40 controls, were enrolled in the study. The right cheek was selected for imaging and RCM was used for scanning. Ten images of $1000 \times 1000 \mu\text{m}$ (total 10 mm^2) area were scanned from adjacent areas. The numbers of follicles, infested follicles and mites were counted. The mean numbers of mites per follicle and infested follicles were calculated and compared in the patients and control groups. **RESULTS:** The mean number of mites was 44.30 ± 23.22 in PPR, 14.57 ± 15.86 in ETR and 3.55 ± 6.48 in the control group ($P < 0.001$). The mean number of mites per follicle was 1.77 ± 0.90 in PPR, 0.57 ± 0.63 in ETR and 0.13 ± 0.23 in the control group ($P < 0.001$). The cut-off for the mean number of mites for determining mite infestation was 0.17 and above. **CONCLUSIONS:** Demodex mite density was markedly increased in both ETR and PPR patients. It is believed that the presence of demodex mites plays an important role in rosacea aetiopathogenesis. Demodex mite treatment may reduce the severity of the disease and slow its progressive nature. © 2016 The Australasian College of Dermatologists. **KEYWORDS:** confocal microscopy; demodex; rosacea PMID:26969834