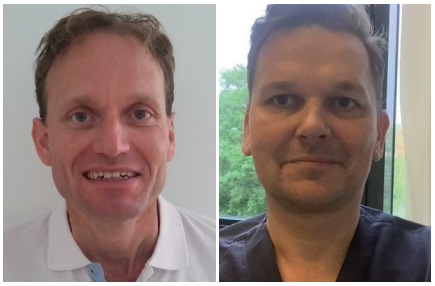
Eruptive Sebaceous Hyperplasia: An Uncommon Side Effect of Systemic Corticosteroid Use in a Renal Transplant Patient



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Introduction

Sebaceous hyperplasia is a benign disorder of the sebaceous glands caused by an overabundance of sebocytes. This high number of sebocytes creates an enlargement of the sebaceous gland which can proliferate to several times its regular size. The sebacceous glands produce an oily substance sebum, which presents as flesh coloured or yellowish, shiny bumps (1).

Sebaceous hyperplasia primarily occurs in the face, though sebaceous glands are localised everywhere on the body, except for the palms of the hands and soles of the feet (1, 2). Newly formed papules often swell with sweating which is pathognomic for the disorder. Sebaceous glands are commonly associated with hair follicles, but are also present in hairless regions of the skin (1).

The symptoms of sebaceous hyperplasia are 1–5 mm large papules on the skin, mainly on the forehead, nose and cheeks, and seborrhoeic facial skin. The papules may have cauliflower shape. Eruptive sebaceous hyperplasia occurs primarily in men (2). The disorder is seldom in young people, but is typically seen in middle-aged and elderly people due to the ageing proces in the sebaceous gland (3).

> "Eruptive sebaceous hyperplasia is a benign disorder, and no malignant proliferation has been reported. Patients often ask for treatment due to cosmetic reasons, particularly because the disorder primarily affects the face.

Eruptive sebaceous hyperplasia can occur as an inherited disorder, which is called familial eruptive sebaceous hyperplasia (4). Sebaceous hyperplasia has also been reported in patients who are treated with immunsuppressive agents following solid organ transplantation. Secondary eruptive familial hyperplasia has predominantly been associated with treatment with the calcineurin inhibitor cyclosporin following organ transplantation (2, 5). It has been suggested that cyclosporin might stimulate sebaceous gland proliferation (5). One study reported the occurrence of sebaceous hyperplasia in 16% of heart transplant patients treated with cyclosporin (2). In contrast, only one patient treated with the calcineuri inhibitor tacrolimus has been reported with sebaceous hyperplasia (6). Furthermore, there has only been one report on the occurrence of eruptive sebaceous hyperplasia associated with immunosuppression with prednisolone (7). In the present case we also report on the occurrence of sebaceous hyperplasia associated with corticosteroid use.

Eruptive sebaceous hyperplasia is a benign disorder, and no malignant proliferation has been reported. Patients often ask for treatment due to cosmetic reasons, particularly because the disorder primarily affects the face. Isotretoin has been found to be effective in the treatment of eruptive sebaceous hyperplasia (4, 6). Treatment with CO_2 laser has also been found to be successful (6).

As mentioned above eruptive sebaceous hyperplasia is a benign disorder. Special care should though be taken when skin diseases occur in organ transplant recipients receiving immunosuppressive agents, as transplant recipients are at high risk of developing other skin diseases, including skin cancers. Simultaneous occurrence of eruptive hyperplasia and basal cell carcinoma in a transplant has also been reported. So when in doubt, diagnosis of skin diseases in organ transplant patients should be confirmed histologically.

Case presentation

A 49-year-old Caucasian man received a renal transplant 25 years ago followed by long-term systemic treatment with prednisolone, and short-term treatment with cyclosporin and azathioprine. He recently presented with the sudden appearance of multiple asymptomatic growths. Skin examination revealed multiple 1–5 mm, soft, skin-coloured to yellowish, dome-shaped, umbilicated papules primary on the forehead but also bilaterally on the lateral/malar cheeks, clinically suggestive and confirmed histologically as sebaceous hyperplasia

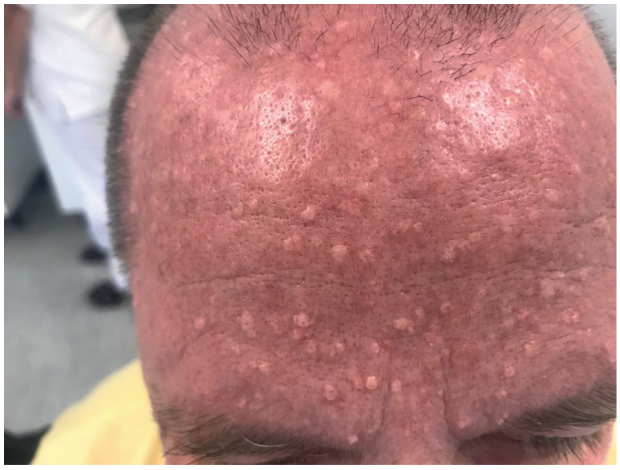

Fig. 1. Multiple umbilicated papules on the forehead of the patient 25 years after renal transplantation.

(Fig. 1). He was treated with locally retinoid and CO_2 laser coagulation with 0.8 Watt defocused.

Conclusion

Eruptive sebaceous hyperplasia is a well-described dermatological disorder, common in immunsuppressed organ transplant recipients. To our knowledge, this is only the second reported case of eruptive sebaceous hyperplasia secondary to the use of prednisone. This case brings awareness to the unique side effect of prednisone inducing sebaceous hyperplasia.

References

1. James WD, Berger TG, Elson D. Andrews' Diseases of the Skin: Clinical Dermatology. Saunders Elsevier. 2006, p. 662.
2. De Berker DAR, Taylor AE, Quinn AG, Simpson NB. Sebaceous hyperplasia in organ transplant recipients: Shared aspects of hyperplastic and dysplastic processes? J Am Acad Dermatol 1996; 35: 696–699.
3. Zouboulis CC, Boschnakow A. Chronological ageing and photoageing of the human sebaceous gland. Clin Exp Dermatol 2001; 26: 600–607.
4. Grimalt R, Ferrando J, Mascaro JM. Premature familial sebaceous hyperplasia: successful response to oral isotretinoin in three patients. J Am Acad Dermatol 1997; 37: 996–998.
5. Cortes B, Kaya G. Multiple eruptive sebaceous hyperplasia secondary to cyclosporin in a patient with bone marrow transplantation. Dermatopathology 2016; 49: 79–82.
6. Levandoski KA, Girardi NA, Loss MJ. Eruptive sebaceous hyperplasia as a side effect of oral tacrolimus in a renal transplant recipient. Dermatol Online J 2017 23. pii: 13030/qt7x0125gz.
7. Ranasinghe GC, Friedman AJ. Eruptive sebaceous hyperplasia: A rare consequence of systemic corticosteroids. J Drugs Dermatol 2018; 17: 118–120.