



HAIR DISORDERS

## **SUNSCREEN AND FACIAL SKIN CARE PRODUCTS IN FRONTAL FIBROSING ALOPECIA: A CASE CONTROL STUDY**

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**Background:** Since Kossard first described frontal fibrosing alopecia (FFA) in 1994 in six postmenopausal women, the incidence has increased dramatically worldwide. The epidemiology of the condition strongly suggests a contribution of environmental factors. Aldoori et al reported a possible association between FFA and facial skin care products and sunscreen. This finding was substantiated in a number of other studies, including a questionnaire study of men with FFA. Previous studies have not investigated whether frequency of sunscreen use is associated with development of FFA.

**Objective:** To further investigate the association between the use and frequency of sunscreen and facial skin-care products and FFA.

**Materials and Methods:** We conducted a prospective case-control questionnaire study to compare the exposure to sunscreens, moisturisers and cosmetics between subjects with FFA and controls with female pattern hair loss (FPHL). Patients were recruited during 2017 from a single specialist hair clinic in Melbourne, Australia.

**Results:** We recruited 130 subjects with FFA and 130 control subjects. The use of a dedicated sunscreen in the FFA group was over double that of the controls, with 92% of women with FFA reporting regular use ( $P < 0.0001$ ). There was no statistical difference between the use of moisturisers between the case and control groups. Cosmetics were used more commonly by subjects with FFA (33%) than FPHL (16%) ( $P = 0.002$ ). Subjects with FFA reported more frequent use of sunscreen-containing products, with 88% reporting daily use year-round, compared with 29% in the control group ( $P < 0.001$ ).

**Conclusions:** The high frequency of sunscreen use among women with FFA supports the hypothesis that sunscreen use on the forehead may be involved in the aetiology of FFA. Extended patch testing will improve the understanding of the role of sunscreen and facial skin care products in the pathophysiology of this increasingly common condition.

