We present the case of a 79-year-old woman with a history of breast cancer who developed Grover disease (transient acantholytic dermatosis) following initiation of an aromatase inhibitor, anastrozole, as adjunctive treatment of her breast cancer. A number of drugs have been associated with this condition; however, to our knowledge, this case is the first report of anastrozole-induced Grover disease.

Grover disease (transient acantholytic dermatosis) is a pruritic papulovesicular eruption of the trunk and proximal limbs typically seen in white men during the fifth decade of life. The pathogenesis of the disease is unknown, but solar damage, heat, and sweating are commonly associated with this entity. Other conditions associated with Grover disease include any febrile illness; immunodeficiency; and malignancy, especially leukemia and lymphoma. A number of pharmaceutical agents have been implicated as possible triggers for the disease. We present here a case of anastrozole-induced Grover disease in an elderly woman being treated for breast cancer.

Case Report
A 79-year-old white woman with a medical history of breast cancer presented to the Saint Louis University Department of Dermatology with an extremely pruritic rash involving her trunk and proximal extremities of 9 months’ duration. She had been treating her rash with a moisturizer and steroid ointment twice daily prior to evaluation with no improvement. Physical examination revealed pink, somewhat scaly papules on the trunk, arms, and thighs. The clinical differential diagnosis included drug hypersensitivity, Grover disease, and pemphigus foliaceus.

Punch biopsies were performed for routine histology and direct immunofluorescence. Pathology demonstrated acantholysis and dyskeratosis of keratinocytes as well as a superficial perivascular inflammatory infiltrate with scattered eosinophils (Figure); these findings were consistent with Grover disease.

On further questioning of the patient, it was discovered that her rash began following the initiation of anastrozole therapy for breast cancer. The patient had been taking triamterene prior to the initiation of anastrozole and had not experienced a rash or any other skin reaction on triamterene alone. After discussion with the patient’s primary care physician and oncologist, anastrozole was discontinued. The patient’s triamterene also was discontinued because it is a more common cause of drug reactions; however, to our knowledge, Grover disease has never been reported in association with triamterene. Within 3 weeks of discontinuing anastrozole, the patient’s pruritus had substantially improved. She returned to the clinic 3 months after her initial presentation with only a few residual scaly papules on the trunk and proximal extremities. Based on the timeline between commencement of anastrozole and the eruption as well as resolution on discontinuation, it was presumed that anastrozole was the inciting agent; however, an interaction between anastrozole and triamterene cannot be entirely excluded. Unfortunately, the patient died shortly after this appointment making further follow-up impossible.

Comment
The pathogenesis of Grover disease is poorly understood; however, it has been postulated that occlusion of damaged eccrine intraepidermal ducts is the underlying cause. Grover disease has been observed in association with various conditions including UV radiation, heat and excessive sweating.
Focal keratinocyte acantholysis and dyskeratosis with an associated perivascular inflammatory infiltrate with scattered eosinophils in the superficial dermis (H&E, original magnification ×100).

Grovier Disease

A number of drugs have been reported as possible triggers of Grover disease including penicillamine, ribavirin, 2-chlorodeoxyadenosine, cetuximab, and IL-4.8-13 Our patient was not being treated with medications associated with induction of Grover disease. An increased incidence of Grover disease also has been observed in cancer patients. Although malignancy has been associated with Grover disease, it is most commonly seen with hematogenous malignancies and rarely is induced by solid tumors.2,14-17 One case of breast cancer–induced Grover disease has been reported in the medical literature.24

Conclusion

We report a case of anastrozole-induced Grover disease. Although it is possible that trimeterene played a role in this patient’s disease, it is more likely that anastrozole was the inciting agent. The timeline of administration of anastrozole and the appearance of cutaneous lesions as well as the remission of symptoms on discontinuation of the drug supports the conclusion that this patient’s disease was induced by anastrozole.

REFERENCES


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