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Dermatitis herpetiformis flare associated with use of triiodomethane (*Iodoform*) packing strips for alveolar osteitis

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Dermatitis herpetiformis (DH) is an autoimmune blistering disease associated with gluten sensitivity that typically presents with extremely pruritic erythematous, urticarial papules and plaques containing herpetiform vesicles on the extensor aspects of the elbows and knees, the buttocks, and the back. We report a case of a DH flare following exposure to triiodomethane in a 19-year-old Caucasian woman.

The case-patient had a 6-year history of DH, confirmed by histopathology and immunofluorescence, that was controlled with a gluten-free diet and dapsone 50 mg daily. Three days after undergoing extraction of six molar teeth, she complained of increasing mouth pain and was diagnosed with alveolar osteitis in two sockets. The involved sockets were packed with packing strips containing triiodomethane (Curity Iodoform Packing Strips, Tyco Healthcare/Kendall, Mansfield, MA) and a paste containing chlorobutanol, guaiaccol, eugenol, and Balsam Peru (Dry Socket Paste, Sultan Healthcare, Engelwood, NJ). One day later she experienced an eruption of extremely pruritic papules and vesicles on the shoulders, elbows, knees, and buttocks. The eruption was more severe than eruptions occurring during previous exacerbations. Dapsone was increased to 75 mg daily without improvement. In light of the packing strips' temporal association with the flare, they were removed. One day later the skin lesions and symptoms began resolving and resolved entirely within two weeks. At that time dapsone was decreased to 50 mg daily. Since then she has experienced occasional mild DH exacerbations associated with gluten ingestion.

The observation that iodine and related compounds can trigger DH onset or flares dates to 1891¹, although the pathophysiology of these reactions has not been well characterized. Historically, provocative tests using oral iodine or iodides or topical iodides have been used in the diagnosis of DH.¹⁻⁴ Potassium iodide, contrast media, iodine-containing diets (including seafood), and thyroid disorders (with and without treatment with iodine compounds) have also been associated with DH onset or flares.^{1, 5, 6} To our knowledge, only one prior report has linked triiodomethane exposure to a DH flare.⁷ That case-patient was a 60-year-old woman with a three-year history of DH whose disease became refractory to treatment (including dapsone 100 mg daily as well as a sulfonamide and a corticosteroid) after she had a triiodomethane-containing filling material placed in an endodontically treated tooth. After extraction of that tooth, her symptoms were eliminated with dapsone 50 mg daily. DH flares have not been associated with iodine-containing products applied to the skin, such as surgical

antiseptics, which might be due to lower systemic absorption through keratinized, compared to non-keratinized, squamous epithelium. DH flares have also not been associated with chlorobutanol, guaiacol, eugenol, or balsam of Peru, although given the temporal association between use of these compounds and the DH flare they cannot be ruled out as a cause.

DH patients and their physicians and dentists should be aware that exposure to iodine-containing products such as triiodomethane might lead to a disease flare. Physicians and dentists should consider using alternatives to iodine-containing products in DH patients.

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References

1. From E, Thomsen K. Dermatitis herpetiformis. A case provoked by iodine. *Br J Dermatol* 1974;91:221–4. [PubMed: 4606418]
2. Charlesworth EN, Backe JT, Garcia RL. Letter: Iodide-induced immunofluorescence in dermatitis herpetiformis. *Arch Dermatol* 1976;112:555. [PubMed: 773312]
3. Haffenden GP, Blenkinsopp WK, Ring NP, Wojnarowska F, Fry L. The potassium iodide patch test in dermatitis herpetiformis in relation to treatment with a gluten-free diet and dapsone. *Br J Dermatol* 1980;103:313–7. [PubMed: 7426428]
4. Salo OP, Laiho K, Blomqvist K, Mustakallio KK. Papillary deposition of fibrin in iodide reactions in dermatitis herpetiformis. *Ann Clin Res* 1970;2:19–21. [PubMed: 4192786]
5. Sciallis GF. Letter: Dermatitis herpetiformis and iodine. *Br J Dermatol* 1976;94:343. [PubMed: 1252366]
6. Douglas WS, Alexander JOD. Letter: Dermatitis herpetiformis, iodine compounds, and thyrotoxicosis. *Br J Dermatol* 1975;92:596–8. [PubMed: 1174473]
7. Landes E. Therapieresistenz einer Dermatitis herpetiformis Duhning gegen Sulfone, Sulfonamide und Steroide durch Jodoform-Zahnfüllung. *Z Haut Geschlechtskr* 1960;28:306–7. [PubMed: 14413787]