Iododerma
—Report of a Case—

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Iododerma is an uncommon eruption caused by exposure or ingestion of iodides or related compounds. The typical cutaneous lesions are acneiform papulopustules that appear in skin sites rich in sebaceous glands. We report a case of iododerma in a 63-year-old male patient who took oral potassium iodide (KI) to treat sporotrichosis. One week later discrete acneiform papules and pustules appeared on his nose and nasolabial folds. The skin lesions persisted for several weeks during treatment with KI. Results from a skin biopsy of the lesions showed intraepidermal abscesses, dense inflammatory infiltrates in the dermis, and marked pseudoepitheliomatous hyperplasia. After stopping KI, the acneiform skin lesions cleared within a few days. (Dermatol Sinica 21: 171-174, 2003)

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Introduction

Iododerma results from the administration of iodides and related compounds. Typically, it is acneiform\textsuperscript{1-3}, but large vegetative or ulcerative lesions have been reported.\textsuperscript{1, 4-6} A very long interval exists between the first ingestion of iodides and the appearance of the cutaneous lesions. It may be an allergic phenomenon because once a person has become sensitized, the eruption recurs within a few days upon the readministration of iodides.\textsuperscript{4-5, 7} The prognosis is good with complete disappearance of the lesions after cessation of iodides. Sometimes the use of corticosteroids is required for persistent cases.\textsuperscript{1, 4, 7}

Case report

A 63-year-old male patient noted discrete painful reddish lesions on his nose and nasolabial fold for about 4 to 5 weeks (Fig. 1). Before the skin lesions appeared, he had been diagnosed a case of cutaneous sporotrichosis on his lower left limb and used 10\% KI solution 5 mL three times daily for one week. He denied similar acneiform eruptions before, and these papulopustules persisted during the KI treatment. Based upon his clinical features and history, we considered iododerma as the diagnosis. A skin biopsy was performed and histological studies revealed marked pseudoepitheliomatous hyperplasia of the epidermis with marked intraepidermal abscesses. The dermis contained dense infiltrates of both neutrophils and mononuclear cells (Fig. 2). In addition, tissue cultures were negative for fungus and bacteria.

Since the results of the histopathologic examination were consistent with the diagnosis of iododerma, we discontinued KI. The acneiform eruptions cleared within a few days, and did not recur during the follow-up period of three months.

Discussion

Potassium iodide is a useful drug in dermatological armamentarium. It has been used for many inflammatory dermatoses, such as erythema nodosum, subacute nodular migratory panniculitis, nodular vasculitis, erythema multiforme, and Sweet's syndrome.\textsuperscript{8-11} Cutaneous and lymphocutaneous sporotrichosis have been treated with KI as described in our case.\textsuperscript{12} Other commonly used medical compounds such as antiseptics, contrast medium, and thyroid protection agents also contain iodides.

Adverse effects to orally, topically, or intravenously administered iodides are uncommon despite the frequent use of it. Generally, these undesirable reactions can be classified into five categories: (1) direct effects on the thyroid, (2) iodism, (3) enlargement of the salivary glands, (4) hypersensitivity reactions, and (5) iododerma.\textsuperscript{5, 13} The lesions of iododerma have been described as vesicular, pustular, hemorrhagic, urticarial, fungating, suppurative, and ulcerative.\textsuperscript{13, 14} However, the most common form of iododerma is a papulopustular or pustular eruption with a predilection for the areas of skin that have the highest concentration of sebaceous glands. Lesions may develop as late as 8 to 12 months after iodide intake, but frequently the eruption occurs within a few weeks.\textsuperscript{1, 13}

The diagnosis of iododerma and other halogenodermas depends upon clinical evaluation of the characteristic cutaneous eruptions and patient history as no laboratory or histopathologic finding is pathognomonic.
However, the histopathologic findings, especially in old lesions, may be quite characteristic and show marked pseudoepitheliomatous hyperplasia with intraepidermal abscesses and dermal infiltrates of neutrophils and mononuclear cells. The differential diagnoses for such histologic findings include blastomycosis, pemphigus vegetans, pyoderma vegetans, and other halogenodermas. Iododerma can be readily diagnosed with sufficient clinical information and associated drug history. Additionally, negative results of the tissue culture excluded infectious causes.

With complete clearance of the lesions after discontinuing the iodides, the prognosis is good. Case reports of iododerma with a fatal outcome are rare. Some authors also suggest administering oral corticosteroids and antibiotics to manage iododerma besides discontinuing the iodide preparation. However, early identification and immediate withdrawal of iodides remains the best treatment.

Since uses of KI in dermatological practice are frequent, and the diagnosis of iododerma, especially in acneiform, can be easily missed as folliculitis, or acne vulgaris if the clinician does not consider the use of potassium iodide as an etiology. Early identification not only leads to early clearance but also helps to avoid unnecessary treatments.

**REFERENCE**


