

Burning Skin Patches on the Face, Neck, and Chest

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A 26-year-old man presented with a burning skin rash around the mouth, neck, and chest after 1 night of lethargy due to excessive alcohol consumption 2 days prior. He also reported a sore throat and burning pain in the stomach and esophagus. Physical examination revealed signs of severe epidermal necrosis, including erythema, blisters, serous discharge, and superficial crusts on the perioral region, as well as well-defined erythema on the anterior neck and chest. Gastroscopy and laryngoscopy showed extensive mucosal erosion. A laboratory workup revealed no abnormalities.

WHAT'S YOUR DIAGNOSIS?

- a. alcoholic contact dermatitis
- b. chemical burn
- c. food eruption
- d. gastric acid dermatitis
- e. *Paederus* dermatitis



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The author reports no conflict of interest.

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Cutis. 2024 March;113(3):E4-E5. doi:10.12788/cutis.0978

THE DIAGNOSIS:

Gastric Acid Dermatitis

After further discussion, the patient indicated that he had vomited during the night of alcohol consumption, and the vomitus remained on the affected areas until the next morning, indicating that excessive alcohol ingestion stimulated abundant secretion of gastric acid, which caused the symptoms. Additionally, the presence of clothing acted as a buffer in the unaffected areas, which helped make the final diagnosis of gastric acid dermatitis. The patient was treated with external application of recombinant bovine basic fibroblast growth factor gel (21,000 IU/5 g) once daily, and the lesions greatly improved within 7 days. The burning pain of the throat, stomach, and esophagus resolved after consultation with an otolaryngologist and a gastroenterologist.

Gastric acid dermatitis is a new term used to describe an acute skin burn caused by the patient's own gastric acid. Generally, the pH of human gastric acid is between 0.9 and 1.8 but will be diluted after eating and will gradually increase to approximately 3.5, which is not enough to induce burns on the skin.¹ In addition, the skin barrier is capable of preventing transient gastric acid corrosion.^{2,3} However, the release of a large amount of gastric acid after excessive alcohol ingestion coupled with 1 night of lethargy left enough acid and time to induce skin burns in our patient.

Dermatitis caused by other allergic or chemical factors, such as *Paederus* dermatitis, was excluded, as the patient's manifestation occurred during the inactive period of *Paederus fuscipes*. Furthermore, the patient denied any history of contact with chemicals in the last month. Food eruptions primarily manifest as systemic anaphylaxis with

eruptive and pruritic rashes after consumption of seafood, eggs, milk, or other proteins, while alcoholic contact dermatitis is a form of irritating dermatitis that could be easily induced again by direct skin contact with alcohol.

Management of gastric acid dermatitis is similar to that for other chemical burns. Because scarring seldom occurs, the central issue is to restore the skin barrier as quickly as possible and to avoid or alleviate postinflammatory hyperpigmentation. Treatments to restore the skin barrier include recombinant bovine or human-derived basic fibroblast growth factor gel, moist exposed burn ointment, and medical sodium hyaluronate gelatin. To treat postinflammatory hyperpigmentation, some whitening agents such as compound superoxide dismutase arbutin cream and hydroquinone cream as well as the Q-switched Nd:YAG laser are effective to ameliorate the skin condition. If skin burns are on sun-exposed areas, photoprotection is necessary to prevent hyperpigmentation.

Acknowledgment—We thank the patient for granting permission to publish this information.

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