Notable Notes

The Clinical and Histopathological Description of Geometric Phagedenism (Pyoderma Gangrenosum) by Louis Brocq One Century Ago

Pyoderma gangrenosum is an idiopathic, rapidly evolving, severely debilitating neutrophilic dermatosis, typically characterized by an inflammatory ulcer with a purulent infiltrated border. About two-thirds of pyoderma gangrenosum are associated with systemic diseases, mostly inflammatory bowel diseases (either ulcerative colitis or Crohn disease), but also with monoclonal gammopathies and myeloproliferative disorders.

Brunsting, et al. (from the Mayo Clinic, Rochester, MN), first coined the term pyoderma (eczthyma) gangrenosum in 1930. In their seminal article, 4 of 5 patients presented with ulcerative colitis and one had idiopathic chronic purulent pleurisy. At that time, the term pyoderma was used by dermatologists to refer to “purulent skin diseases due to infectious agents.” Brunsting et al first introduced the term gangrenosum to address the necrotic and rapidly extensive features of this dermatosis.

In 1908, Louis Brocq, MD (Figure), reported a series of patients with typical features of the entity later named pyoderma gangrenosum by Brunsting et al. As a meticulous semiologist, Brocq discerned three components of the skin ulcer\(^{[2,22]}\): (1) the ridge, “the most prominent part of the ulcer's edge, featuring a regular, geometric, circular or elliptic pattern”; (2) the external slope of the border, sometimes painful, featuring erythema and infiltration, which decreases steadily and fades “between 4 and 20 mm from the ridge”; and (3) the internal slope of the border, typically vertical and “as sharp as a cliff,” with “a height of 3 to 12 mm” and “dimpled by purulent cavities,” which shows a “marked tendency of undermining.”

Brocq also described two evocative aspects of the histopathological picture:\(^{[3]}\) (1) the presence of a necrotic inflammatory infiltrate with a predominance of neutrophils; and (2) the marked depth of this infiltrate, usually involving the hypodermis. Moreover, he demonstrated that the reported ulcerative dermatosis was neither related to syphilis nor transmissible to animals. Finally, he emphasized that the main differential diagnosis was infectious cellulitis.

Brocq named this dermatosis geometric phagedenism, to underscore both the geometrical pattern of the ridge and the necrotic and rapidly extensive nature of the ulcer (\(\pi\)gh\(\alpha\)\(t\)\(\omega\)n [Greek], meaning food, consumption). Even though the former term is no longer used, there is no doubt that geometric phagedenism as described by Brocq and pyoderma gangrenosum as described by Brunsting et al are the same disease.

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