Dermatology Practical & Conceptual

Bowel-Associated Dermatosis-Arthritis Syndrome (BADAS)

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Case Presentation

A 54-year-old male, one year after bariatric surgery consisting of bilio-intestinal bypass, developed symmetric polyarthritis. A diagnosis of psoriatic arthritis was made, and treatment with methotrexate, subsequently associated with golimumab, was administered. The patient was referred to us for flu-like symptoms followed by onset of papulopustular lesions on his forearms, armpits, abdomen, and thighs, which were initially attributed to hidradenitis suppurativa due to concurrent groin and axillary nodules (Figure 1). Histological examination showed papillary dermal edema and a dense perivascular neutrophilic infiltration, confined to the upper dermis. A diagnosis of bowel-associated dermatosis-arthritis syndrome (BADAS) was made. Tetracycline was administered in cycles with temporary relief. Skin lesions subsided slowly and regressed after many years.

Teaching Point

Bowel-associated dermatosis-arthritis syndrome (BADAS) is a rare complication of bowel surgery characterized by a serum sickness-like syndrome with fever, chills, malaise, arthralgia, myalgia, and asymmetric aseptic polyarthritis often preceding the skin eruption. Cutaneous findings include erythematous macules that evolve into central papulovesicles or pustules, predominantly affecting the upper extremities and trunk, but potentially occurring anywhere except the face and genitalia. The pathogenesis likely involves bowel bacterial overgrowth, immune complex formation, and complement activation. Histopathology reveals papillary dermal edema with dense neutrophilic infiltration confined to the upper dermis [1]. BADAS may mimic hidradenitis suppurativa or other skin conditions, leading to diagnostic delays. Awareness is crucial to early recognition. Tetracyclines or

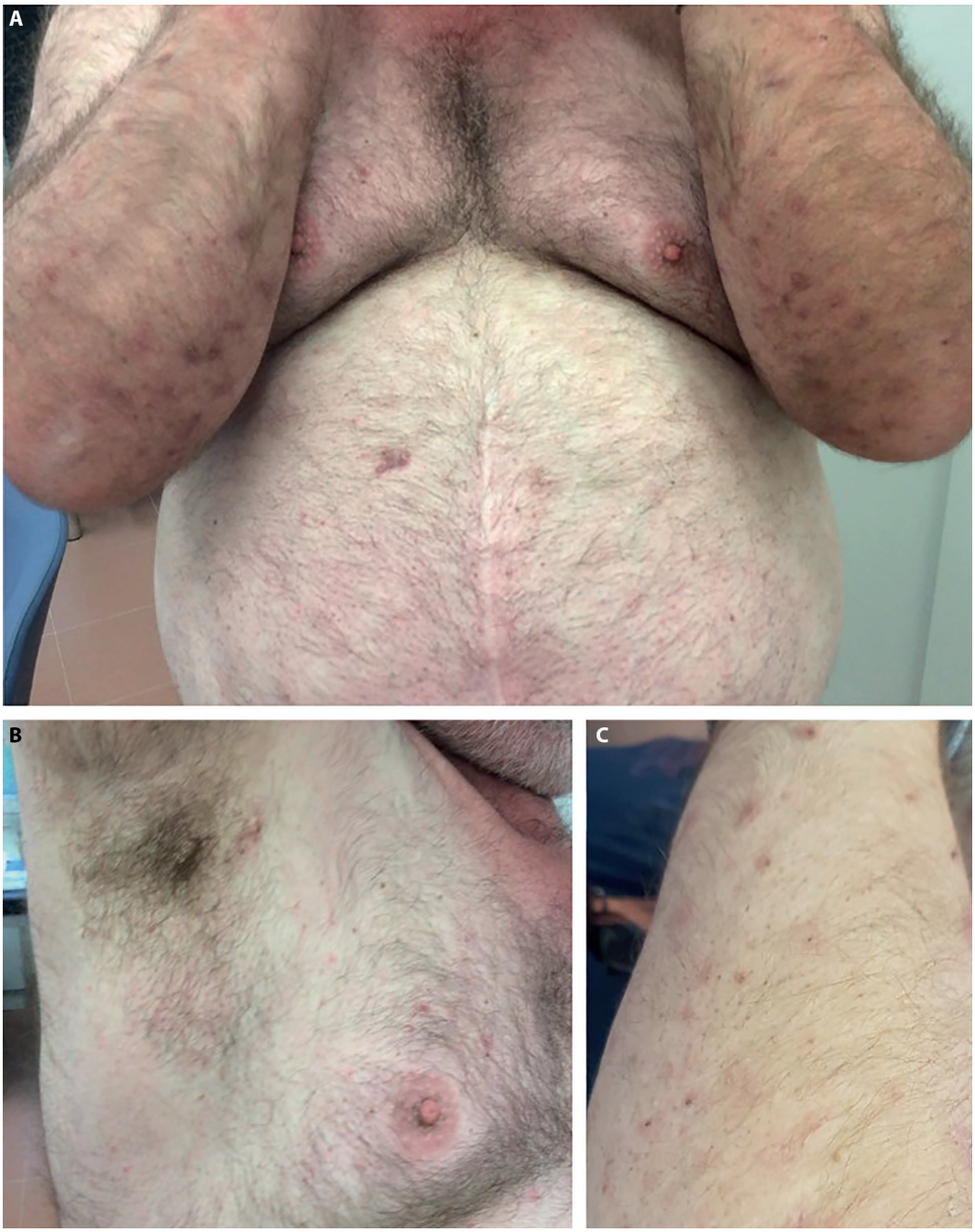

Figure 1. Clinical presentation of skin manifestations in bowel-associated dermatosis-arthritis syndrome (BADAS). (A) Numerous erythematous papules and papulopustules scattered over the abdomen and extensor surface of forearms. (B) Multiple small erythematous-to-violaceous papulopustular lesions distributed on the pectoral region. (C) Closer view of the extensor forearm showing grouped papulopustular lesions, some with central vesiculation.

other antibiotics are the mainstay of therapy; in refractory cases, systemic corticosteroids or immunosuppressants may be considered [2].

References

1. Czajkowski R, Lipska P, Watoła W, Grabowska N, Wełniak A. Bowel-associated dermatosis-arthritis syndrome (BADAS): a narrative review. *Postepy Dermatol Alergol*. 2023 Jun; 40 (3): 355-361. DOI: 10.5114/ada.2023.129101. Epub 2023 Jul 15. PMID: 37545820.
2. Aromolo IF, Simeoli D, Maronese CA, et al. The Bowel-Associated Arthritis-Dermatosis Syndrome (BADAS): A Systematic Review. *Metabolites*. 2023 Jun 25;13(7):790. DOI: 10.3390/metabo13070790. PMID: 37512497.