Background: Palisading Neutrophilic Granulomatous Dermatitis (PNGD) is an uncommon condition. PNGD rarely occurs in the absence of a systemic disease, representing usually a cutaneous reaction to an internal inflammation, as systemic lupus erythematosus, lymphoproliferative diseases, sarcoidosis and ulcerative colitis. Bowel-Associated Dermatosis-Arthritis Syndrome (BADAS) is a non-infectious neutrophilic dermatosis reported in patients with inflammatory bowel disease (IBD) as well as in patients who have undergone bowel bypass surgery or other gastrointestinal surgeries with a blind-loop.

Observation: A 78-year-old Caucasian woman was admitted to our department for evaluation of painful skin eruptions on knees, legs and hands; she complained also of abdominal pain, diarrhea, tenesmus, mucus in stool, and arthralgias. By cutaneous examination individual and confluent red-purple dermal papules on palmar hands and knees, and tender, red-violet subcutaneous nodules on legs have been observed. Routine laboratory showed both high ESR (81) and C-reactive protein (19), while cryoglobulins, ANCA, hepatitis serology, anti-DsDNA, ANA, anti-Ro/La/RNP, anti-Smith, anti-phospholipid antibodies, rheumatoid factor and anti-CCP were negative. A colonoscopy showed a rectosigmoid UC. Pathologically, a dermal neutrophilic inflammation with karyorrhectic debris, leukocytoclastic vasculitis, palisades of histiocytes, and small granulomas have been shown. According to the clinical features and the pathological findings, diagnosis of PNGD was made. Furthermore, because of the arthritis, bowel symptoms and erythema nodosum a definitive diagnosis of BADAS was made. The patient was treated with mesalazine and rifaximin, showing an improvement of both skin lesions and UC symptoms.

Key message: PNGD-BADAS are two different processes that share some characteristics.
Indeed, both represent a cutaneous pattern associated with an underlying systemic inflammation. Furthermore, a common etiopathogenetic background for PNGD and BADAS might be speculated. Our case shows that is mandatory to identify the underlying disease in order to give a correct therapy for the underlying disorder.