



Pseudolymphoma Concomitant with Parvovirus B19 Infection

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Keywords

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Jessner's lymphocytic infiltration of the skin (JLIS) is a skin condition of unknown etiology characterized by erythematous papules, plaques, and/or nodules located on the head, neck and upper back. Lesions usually are asymptomatic and resolve without scarring. JLIS can be similar in appearance to other benign lymphocytic infiltrates which include for instance a variant of lupus erythematosus (LE), in particular, tumid LE. A few cases of JLIS-like lymphocytic infiltrates are related to *Borrelia burgdorferi*; infection or drugs and contact allergy have also been reported. Some investigators favor polymorphic light eruption (PLE) or pseudolymphoma (PL) as possible causes [1-3]. We here in report a case of pseudolymphoma coexisting with parvovirus infection and describe the dermatoscopic features of this disease.

A 52-year-old woman presented with a 3-month history of a popular lesion that progressed to an erythematous nodule with cutaneous *peau d'orange* aspect on the left mammary region (Figure 1a,1b). The lesion had appeared 24 hours after a surgical procedure (hysterectomy and oophorectomy). It was sporadically pruritic. Dermoscopy with a handheld dermoscope (DermLite II Pro 3Gen [3Gen; SanJuan Capistrano, CA]) revealed arborizing blood vessels of different caliber with an erythematous background (Figure 1c) and yellow dots were observed. At higher magnification with the use of a handheld digital microscope (Proscope HR® [Bodelin Technologies, Lake Oswego, OR]) some yellow dots surrounded by a ridge like border were seen (Figure 1d). Skin biopsy demonstrated a normal epidermis with a perivascular and periadnexal infiltrate of lymphocytes in the dermis, particularly prominent and dense in the reticular dermis. Differential diagnosis included lymphoma.

Immunohistochemistry showed a predominance of T cells, mostly CD3+, CD8+, CD4+, and CD20+B cells (multifocal), and sparse CD30+ cells, indicating this was a reactive inflammatory process (Figure 2). Laboratory investigation revealed parvovirus B19 infection as a coexisting condition with reactive IgG 9.44 against Parvovirus B19 (reference value above 1.1) and not reactive IgM 0.21 (reference value lower than 0.9). Hypovitaminosis D was also detected. Within one year IgG level against Parvovirus B19 dropped to non reactive.

The use of the Proscope HR® allowed for a more refined observation, highlighting the usefulness of this imaging device. We emphasize the dermatoscopic findings of arborizing vessels, yellow dots, some presenting a thread-like border. The later dermatoscopic pattern may be correlated to *topeau d'orange* phenomenon. The arborizing vessels may correspond to the perivascular sleeve-like lymphocytic infiltrate, and may also be found in other cutaneous pseudolymphomas. The yellow dots and the *ridgelike* border may correlate to periadnexal lymphocytic infiltrate with perifollicular accentuation, and intact adnexal structures. The predominance of a small mature polyclonal lymphocytic infiltrate without epidermal involvement confirmed the inflammatory nature of the nodule. Cutaneous manifestations associated with parvovirus B19 infection include vasculitis, erythema nodosum, the lupus erythematosus-like syndrome, some vesiculo-pustular eruptions, pityriasis lichenoides, scleroderma and Kikuchi-Fujimoto disease [4,5]. The concomitance with pseudolymphoma has not been previously reported to the best of our knowledge.

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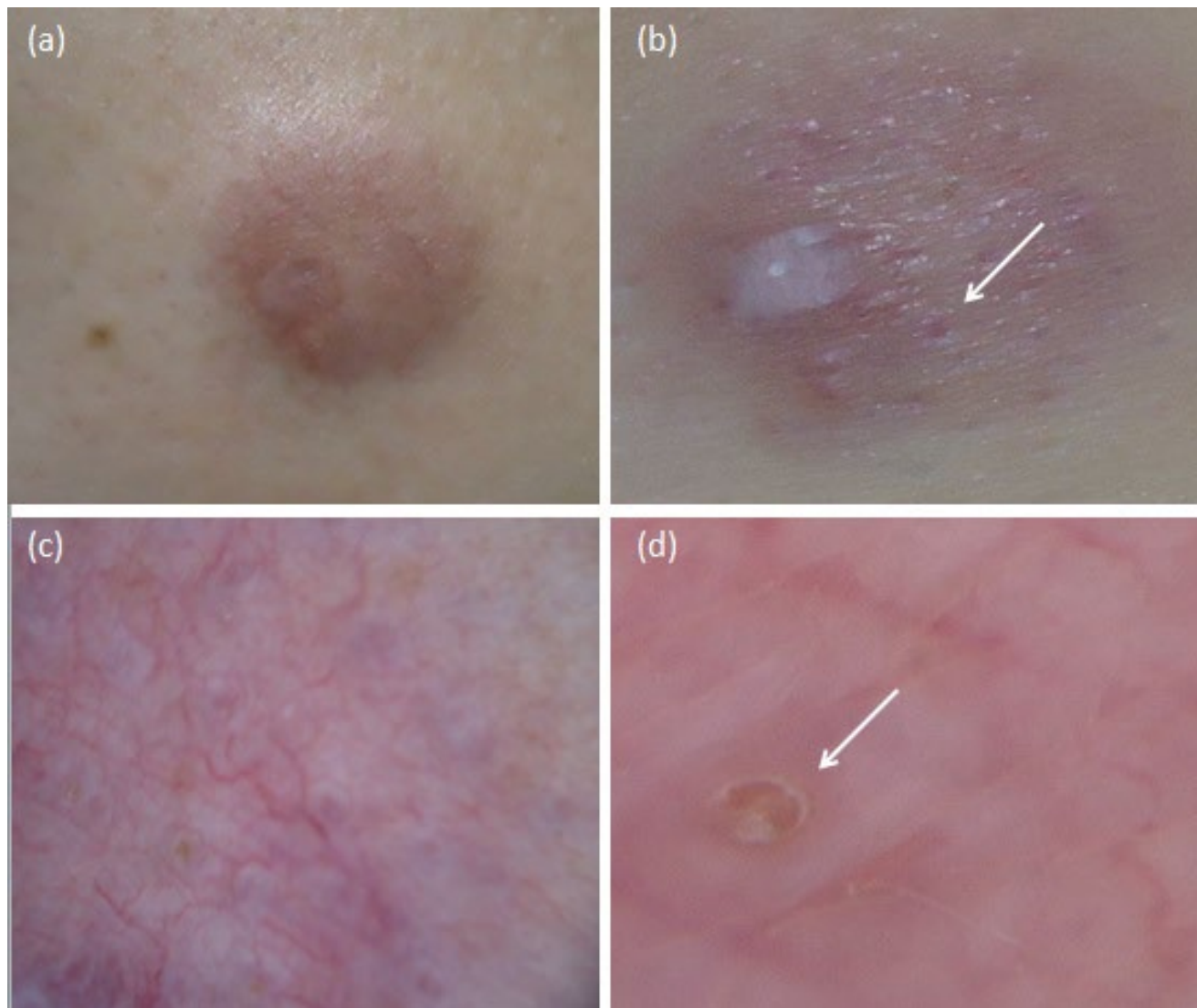


Figure 1: (a) Erythematous nodule on the chest, (b) Peau d'orange phenomenon (arrow), (c) Dermoscopy: arborizing blood vessels and yellow dots, (d) Dermoscopy: ridge like border (arrow).

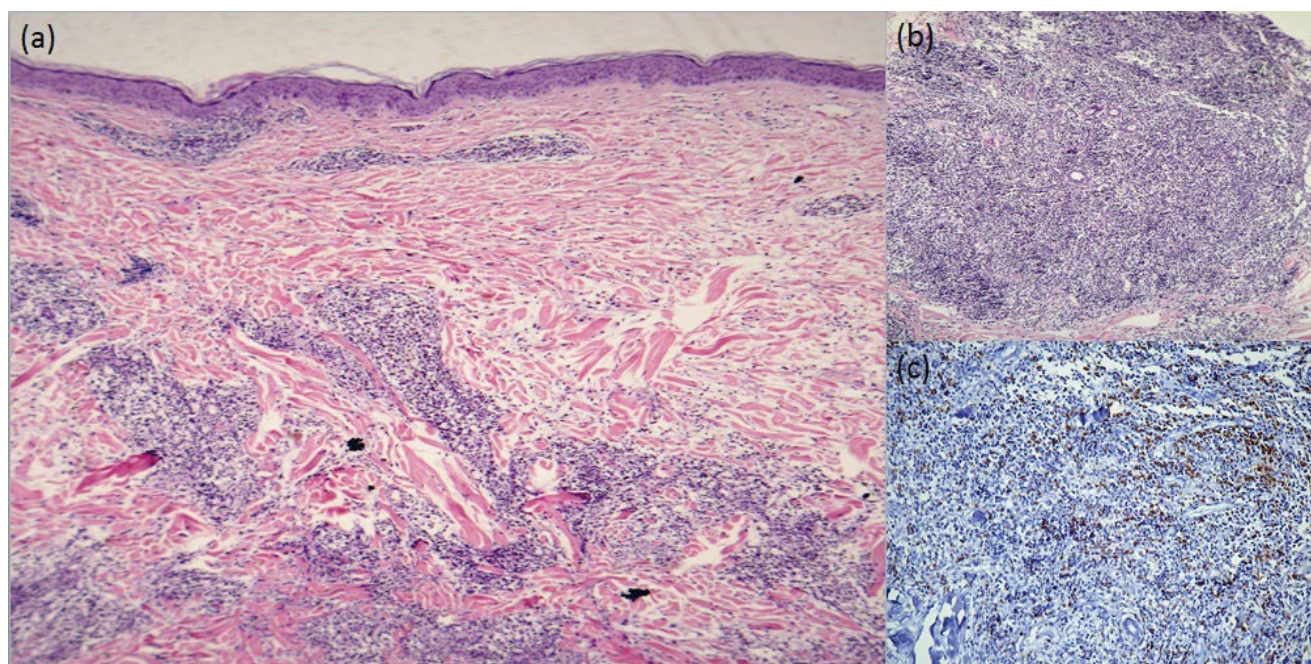


Figure 2: Histopathological findings: (a) perivascular and periadnexal lymphocytic infiltrate, (b) Deep massive lymphocytic infiltration in the dermis, (c) Immunostaining with positive CD8 lymphocytes in the infiltrate (hematoxylin and eosin stain; a, 50x, b, 100x, Immunostain; c, 200x)

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