

## Wolf's Panniculitis

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### Abstract

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A 28-year-old male patient, presented with a one-week history of pain and itching on the skin of the left upper leg. Erythematous indurated, warm and painful on palpation, subcutaneous plaques and nodules were clinically observed, affecting the skin of the left upper leg, within a recent black-wolf tattoo. The diagnosis of traumatic panniculitis with superposed bacterial infection, provoked by a wolf tattoo was made. The patient underwent 7-days systemic antibiotic treatment regimen and topical application of iodine povidone unguent under occlusion for 7 days. Significant alleviation of the subjective complaints was achieved within the first week, with a total clinical resolution of the symptoms. The role of the procedure as a source of trauma for subcutaneous inflammation (traumatic panniculitis) and the contamination of the equipment or the staff (infective panniculitis) in simultaneously triggering of the pathogenetic chain of the reported Wolf's panniculitis could be present.

A 28-year-old male patient, presented with a one-week history of pain and itching on the skin of the left upper leg. The complaints occurred suddenly, two days after a tattoo procedure, while the affected skin became red and swollen. Erythematous indurated, warm and painful on palpation, subcutaneous plaques and nodules were clinically observed, affecting the skin of the left upper leg, within a recent black-wolf tattoo (Fig. 1a). The patient reported another tattoo on the other upper leg, with a couple of years of duration, made by another tattoo specialist in another tattoo studio, which had never been related to such complaints (Fig. 1b). The laboratory blood tests showed leukocytosis, while the microbiology revealed *Staphylococcus aureus* in the wound's secretion. Histopathological evaluation after a deep biopsy revealed signs for lobular panniculitis with focal fat necrosis, multiple foamy histiocytes, collections of foam cells, and inflammatory cells and fibrosis of the dermis overlying the panniculitis with a fibrous pseudo capsule around the traumatised area.



Figure 1: 1a) Erythematous indurated, warm and painful on palpation, subcutaneous plaques and nodules, affecting the skin of the left upper leg, within a black wolf tattoo; 1b) Unaffected owl – tattoo on the other leg of the same patient

The diagnosis of traumatic panniculitis with superposed bacterial infection, provoked by a wolf-tattoo was made. Patient underwent 7-days systemic

antibiotic treatment regimen with ceftriaxone 2 x 1.0 i.v. daily, simultaneously with fraxiparine x 0.4 UI s.c. daily for 7 days and topical application of iodine povidone unguent under occlusion for 7 days. Significant alleviation of the subjective complaints was achieved within the first week, with a total clinical resolution of the symptoms.

Cutaneous complications are associated with tattoos in approximately 30% of the cases, manifested as allergic tattoo reactions, lichenoid, granulomatous, pseudo lymphomatous or reactions with dermal lymphohistiocytic or plasmacytic infiltrate [1]. Melanoma could arise within a tattoo, as de novo, as well as within naevi, hidden in a tattoo, which leads to easily misdiagnosis and therapeutic failures [1, 2]. Despite camouflaging cutaneous diseases, tattoos could trigger some dermatosis via the so-called Koebner phenomenon, including lichen planus, psoriasis, sarcoidosis, dermatofibromas, warts [2, 3], etc., but to the best of our knowledge, only one case is reported in association with panniculitis [4]. Although superficial and deep local infections, as well as systemic infections, are also not unusual, it is not clear enough whether the trauma is the predominant predisposing factor or the procedure-related risk of infection.

In the presented case, a traumatic panniculitis was triggered by a tattoo of a wolf on the left upper leg

of a 28-year-old patient, which was further contaminated with *Staphylococcus aureus*. Patient shown excellent therapeutic response to ceftriaxone, while the reported history of previous non-complicated tattoo, as well as the lack of unifications of the tattooing inks, highlights the role of the procedure as a source of a trauma for subcutaneous inflammation (traumatic panniculitis) and the contamination of the equipment or the staff (infective panniculitis) in simultaneously triggering of the pathogenetic chain of the reported Wolf's panniculitis in particular.

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