

# FACTITIAL PANNICULITIS: A CASE REPORT

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## INTRODUCTION

Factitial panniculitis (FP) is a subgroup of inflammatory disorders involving the subcutaneous tissue secondary to auto-induced mechanical (trauma), physical (application of cold or heat) or chemical injury as a result of self-injection of a wide variety of substances; (milk, organic fluids, oils, drugs, etc). Several cases of FP showing extensive necrosis and fibrotic changes have been published after injections of numerous therapeutic agents, such as opioid alkaloids (pethidine, pentazocine, methadone). The exact pathogenic mechanisms giving rise ischemic changes are poorly understood, but it has been postulated that vasoconstriction and a secondary inflammatory response may play a role. Self-induced FP appears usually in young adults or middle-aged women with a history of psychiatric disorder or drug addiction. Lesions tend to be localized in accessible areas such as the hands, buttocks and thighs. Pentazocine abuse has been described in patients with chronic pain or addiction.

Pentazocine panniculitis appears as long-standing multiple nodulo-ulcerative lesions developing on both buttocks and shoulders. After ulceration fibrotic changes develop and multiple sclerodermoid plaques with extension to the underlying fascia and muscles are observed. Histopathological features of this subtype of FP include a lobular or mixed panniculitis.

## CLINICAL CASE

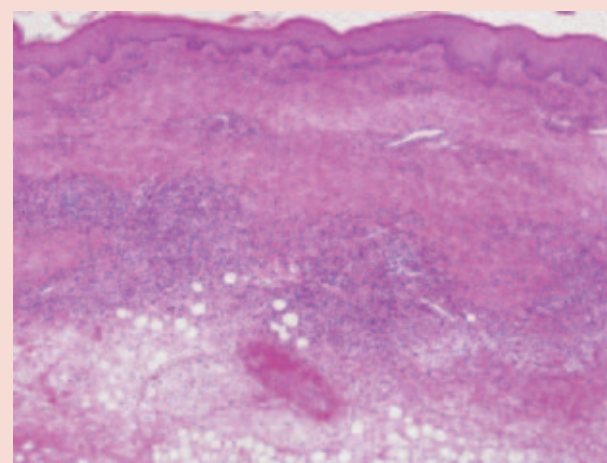
A 65-years-old woman was admitted in our Hospital after being found unconscious in her house. Past medical history disclosed nephrolithiasis and congestive heart failure. Physical examination revealed multiple symmetrical nodules, ulcers and fibrotic plaques on her buttocks, upper and lower back (**Fig 1**), shoulders and arms (**Fig 2**). She applied regularly hot-water bottles for a diffuse skin pain that she attributed to a malignant pathology. Moreover she used to inject herself with pentazocine in order to reduce her "intractable" pain. A complete haematological and biochemical survey disclosed no abnormalities except for discrete hypochromic anaemia. Chest X-ray films showed a discrete heart size enlargement and bilateral alveolar and interstitial pulmonary infiltrates. Several skin biopsies were performed. Histopathological examination disclosed a mixed septal and lobular panniculitis with partial involvement of the lower dermis. Extensive areas of necrosis with occasional blood vessels with fibrinoid necrosis were observed (**Fig 3**). The septa contained a mild inflammatory infiltrate composed by lymphocytes, histiocytes and abundant eosinophils (**Fig 4**). Foamy macrophages and foreign body giant cells (**Fig 5**) focally containing a foreign non-refractile material under polarized light were also noted. Focally there was a disruption of fat cells and their replacement by cystic spaces of variable size surrounded by bands of hyaline fibrosis tissue showing a Swiss-cheese appearance. Using special stains (Giemsa, Grocott, Gram, PAS-diastrase) no microorganisms were observed.



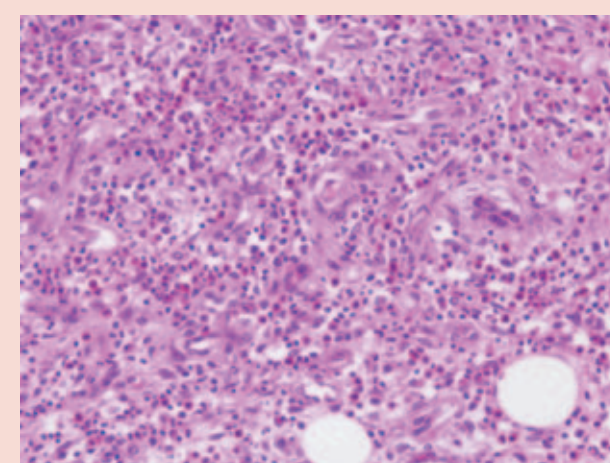
**Fig 1.** Extensive indurated fibrotic plaque on the back with multiple linear scars.



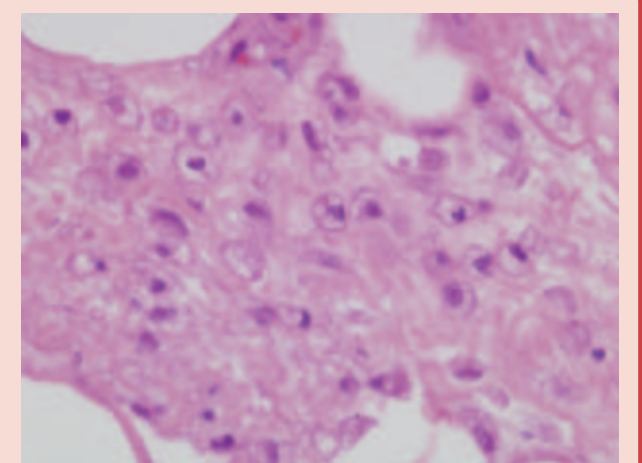
**Fig 2.** Nodular, ulcerative and fibrotic lesions on the shoulder.



**Fig 3.** Dense perivascular inflammatory infiltrate involving the deep dermis extending to the subcutaneous tissue. Subcutaneous fat tissue necrosis and vascular thrombosis (H-E X 40).



**Fig 4.** Detail of the dermal and subcutaneous inflammatory infiltrate composed by lymphocytes, histiocytes and abundant eosinophils (H-E x 200).



**Fig 5.** Histiocytic cells with occasional granular or foamy cytoplasm in the subcutaneous tissue septa (H-E x 400).

## CONCLUSIONS

Panniculitis due to subcutaneous injections of pentazocine occurs more frequently among middle-aged women and medical staff. Characteristic histopathological features may occasional permit to suspect the diagnosis. The behaviour of these patients is typically passive, dependent and quiet. Furthermore, they may give the impression of indifference despite the painfulness and severe mutilation of the process.

## REFERENCES

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