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SCLEROSING LIPOGRANULOMA CAUSED BY ACCIDENTAL INJECTION OF INDUSTRIAL OIL

Abstract: Accidental injection of oily substances causes lesions with severe sclerosis such as those in a 28-year old male agricultural worker case presented, which needed surgical treatment and left after-effects.

Introduction

Sclerosing lipogranuloma is a tissue response to exogenous oily materials, as it happens after repeated injection of substances like paraffin or liquid silicon. This is more usually seen in the male genitalia as a consequence of injection of foreign materials into the scrotum or the penis in the mistaken belief that this would enhance erections [1,2,3].

Case Report

Two years previous to our consultation, a 28-year old male agricultural worker was accidentally injected with high-pressure hydraulic oil in the ball of his right thumb, first commissure and thenar eminence when the coupling of his tractor burst.

After surgical and medical treatment the after-effects included hard tumefactions on the thenar eminence and dorsal of the first commissure as well as retraction in flexing of the articulations of the metacarpal phalange and the proximal phalange of the thumb (Fig. 1a-1b).

Surgical reconstruction was carried out and sample fragments of the soft parts of the tumefactions were taken (Fig. 2). Histologically there was a substitution of normal dermis and hypodermis by a sclerotic tissue, with pseudoangiomatous slit spaces, and an infiltrate of lipophages, lymphoid cells and foreign body giant cells (Fig. 3-5).

Conclusions

Accidental injection of oily substances causes lesions with severe sclerosis such as those in the case presented which needed surgical treatment and left after-effects.

A peculiar histological pattern of sclerosis, morphologically similar to pseudoangiomatous hyperplasia of the breast [4], a type of stromal proliferative lesion, is reported for the first time.

References

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Figure 1 – Tumefactions on the thenar eminence and dorsal of the first commissure and retraction in flexing of the articulations of the metacarpal phalange and the proximal phalange of thumb



Figure 2 – Grossly, the excised tissue was whitish and elastic intermixed with fat tissue.

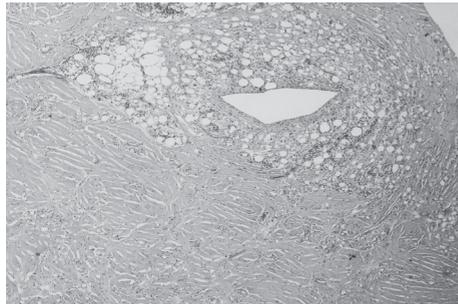


Figure 3 – Low power view: optically empty spaces surrounded by inflammatory infiltrate (top) and sclerosis with irregular clefts (bottom).



Figure 4 – Sclerosis produces artefactual capillary-like irregular spaces (left) similar to pseudoangiomatous hyperplasia of the breast.

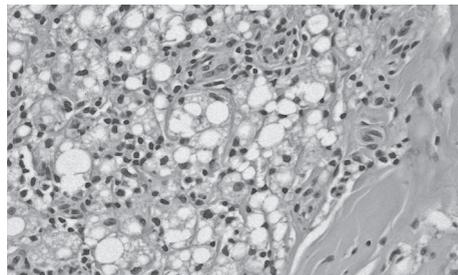


Figure 5 – Numerous histiocytes with fat vacuoles (lipophages).