

Spontaneous Chronic Organising Hematoma Of 35 Years Duration: A Case Report

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Citation

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Abstract

An 83-year-old male presented with painless progressive cystic soft-tissue swelling over the left shin since 35 years. There was no history of trauma or any comorbidities. He had no constitutional symptoms. He developed ulceration over the summit of the swelling for which he sought surgical opinion. A diagnosis of organising hematoma was considered by ultrasonography. The lesion was encapsulated and could be excised completely. Histopathology confirmed the diagnosis of chronic organising hematoma.

INTRODUCTION

Spontaneous organising hematomas are rare [1,2]. They have a structure with a central mass of blood, a wall of granulation tissue, and dense, fibrous tissue at the periphery. There have been sporadic reports of organising hematoma not only in soft tissue but also in brain, adrenal gland, lung and maxillary sinus [3]. We report a case of non-traumatic organising hematoma with a duration of more than 35 years over the infrapatellar region.

CASE

An 83-year-old male, moderately built and nourished presented with swelling in the anterior aspect of the left leg over the upper part, painless and progressive with an increase in size for 35 years duration. The patient had no

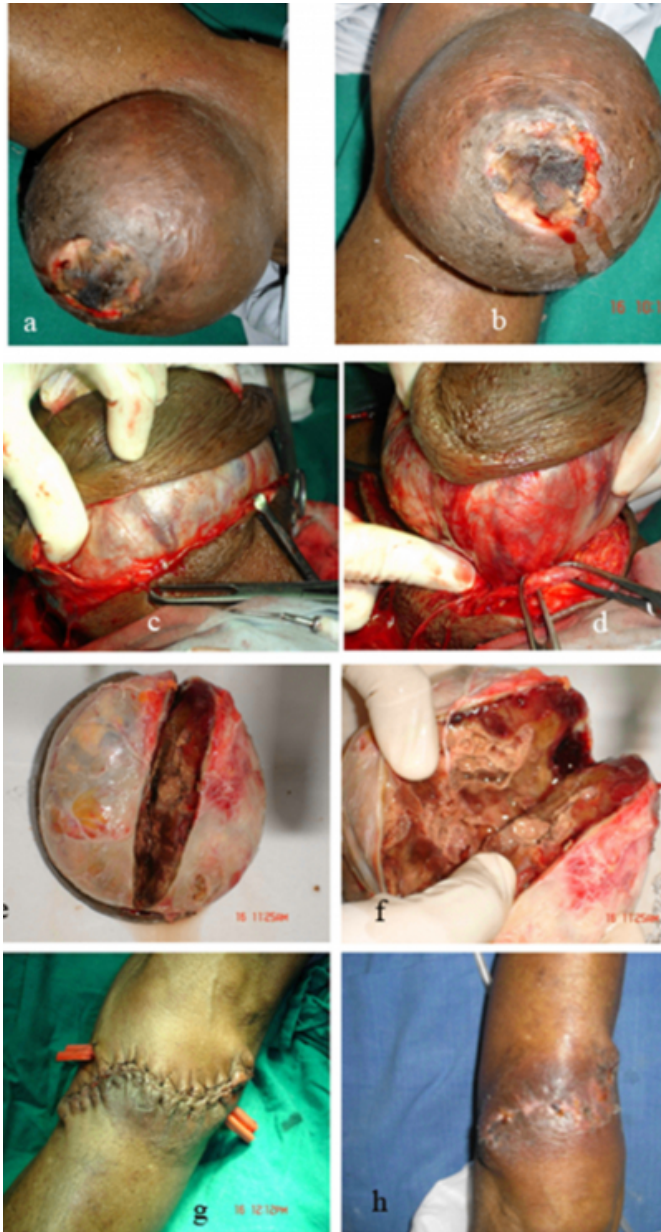
history of trauma or constitutional symptoms and no comorbidities or addictions.

FINDINGS ON EXAMINATION

The patient presented with an 11 x 11cm swelling with the centre 5cm below the knee joint. Local rise of temperature and tenderness were present, and the surface appeared smooth. The margins were distinct. The swelling was tense cystic. An ulceration over the swelling (2x2cm; pressure necrosis with purulent discharge) was present. The swelling was not fixed to underlying structures and could be lifted up from the subcutaneous plane. The left knee joint had a normal range of movement. There was no regional lymphadenopathy and distal neurovascular deficit or bone deformity.

Figure 1

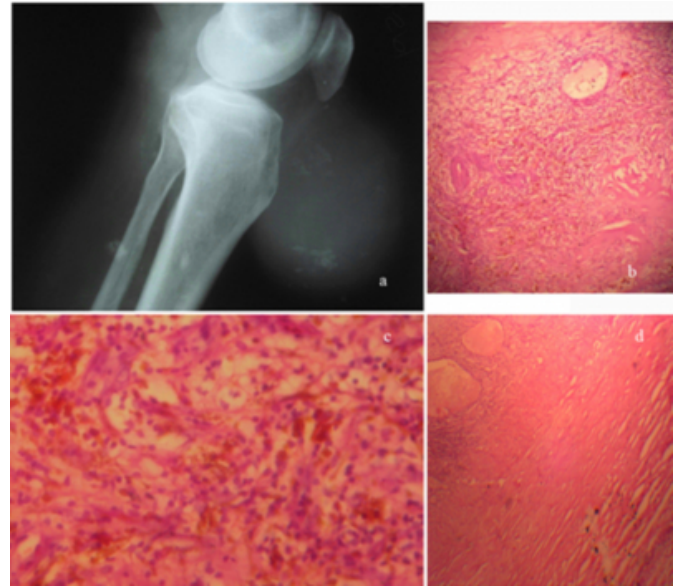
Figure 1 a) Lateral view showing a pedunculated-like appearance of the swelling b) Anterior-posterior view c,d) Swelling being excised with gentle separation of the capsule from the underlying fascia. Large dilated veins seen over the surface e) Shiny smooth surface of the swelling excised completely f) Cut open gross specimen showing areas of cystic degeneration and hematoma g) Post-excision picture of the wound with corrugated rubber drain. An area of thickened and hyperpigmented skin noted below the incision. h) After suture removal.



Renal parameters, liver parameters, complete hemogram and coagulation profile were within normal limits. Chest X-ray and abdominal ultrasonography were normal. X-ray of the left leg with knee joint – lateral view – showed a round soft-tissue shadow and no evidence of bone erosion (Fig. 2a) .

Figure 2

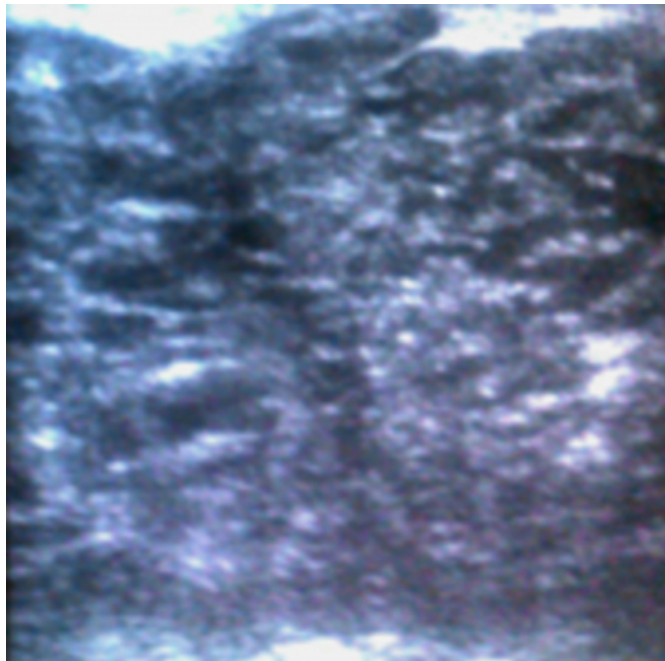
Figure 2 a) X-ray (lateral view) showing evidence of calcification in the shadow of the swelling b) H&E stain, 10x c) H&E stain, 45x, showing hemosiderin d) peripheral capsule



Local ultrasonography showed a capsulated, well-circumscribed lesion (Figure 3) with areas of heterogenous echogenicity, solid and cystic areas, scattered calcifications and peripheral vascularity. Sonological differential diagnoses include epidermal inclusion cyst, giant-cell tumor, hemangiomas and soft-tissue tumors. [4]

Figure 3

Figure 3: Ultrasound picture of chronic organising hematoma



EXCISION DONE UNDER SPINAL ANESTHESIA

An elliptical incision was made along the boundary of the swelling at the base. The incision was deepened and dissection was done along the subcapsular plane circumferentially. The swelling, along with the isolated skin cover on top, was excised completely from the underlying fascia (Fig. 1c, d).

HPE

The circular cystic mass was covered by an elliptical piece of skin on one side (Fig 2 e) and measured 11x8x5.6cm. The piece of skin measured 12x10cm and showed an ulcer with slough, with the base of the ulcer measuring 4.5x3.8cm. Cut sections through the mass showed a well encapsulated lesion with variegated appearance, partly cystic and partly solid. One end showed a dark brown hemorrhagic area (Fig. 2f).

Multiple sections showed skin and encapsulated lesions in the dermis and subcutis. The lesion was composed of hemorrhage, cholesterol clefts (Fig. 2b,c), hemosiderin, macrophages (Fig. 2d) and extensive hyalinisation. Chronic inflammatory granulation tissue is seen at the periphery of the lesion. The features are those of an organising hematoma. The corrugated rubber drain was removed on the 4th postoperative day, after which the patient was fully ambulant. The skin sutures were removed on the 10th postoperative day (Fig. 1g,h) and the wound healed well.

DISCUSSION

The incidence of organising hematoma over the shin is rare [5]. The precise mechanism responsible for chronic expanding hematomas remains unclear. Bradshaw et al. speculated that the initial trauma results in displacement of skin and subcutaneous fatty tissue away from the more deeply located, fixed fascia and underlying muscle, with the consequent formation of blood-filled cysts surrounded by dense fibrous tissue [6]. Grossly, there is a central mass of blood, a wall of granulation tissue, and dense, fibrous tissue at the periphery. The self-perpetuating expanding nature of the lesion appears to be due to the irritant effects of blood and its breakdown products, causing repeated exudation or bleeding from capillaries in the granulation tissue of the cyst wall [7].

The contents are brown turbid fluid, coagulate-like amorphous material, and granulation tissue. Histologically, the lesions show a lamellar structure consisting of two or three zones. The outer zone consists of dense and collagenous tissue and small vessels. The inner zone is occupied by amorphous and acellular materials. The middle zone consists of many small eosinophilic amorphous materials and xanthogranulomatous foreign body reactions. Cholesterol deposition within xanthogranulomatous reactive tissue and a small focus of calcification on the outer wall are also observed [8]. Complete surgical excision, including the capsule, is the best treatment for chronic expanding hematoma as there is a chance of unconfirmed diagnosis or recurrence.

In our case there was no definite history of trauma. It is probable that a trivial trauma, repeated pressure over the shin in the kneeling position while offering prayers or a trauma which was unrecognised might have initiated the process of hematoma formation over the shin. Organizing hematomas occur in extremities and many locations including viscera and simulate neoplasms, especially soft-tissue tumors. With relevant history, clinical examination and imaging these can be ruled out and a probable diagnosis of organising hematoma can be achieved. History of trauma, anticoagulation or bleeding diathesis need not be present all the time. This benign lesion is treated with complete excision and confirmed by histopathology.

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