A Great Chronic Expanding Hematoma on the Palm of the Hand

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Chronic expanding hematoma (CEH) is a rare disease that occurs when a hematoma persists and increases in volume for more than 1 month after the first hemorrhage takes place as a result of trauma or surgery. Most hematomas resolve spontaneously without serious clinical complications, but some may persist and present as slowly expanding lesions that occasionally mimic soft tissue neoplasms such as sarcoma.¹

A 78-year-old man presented a history of 15 years of evolution of a large mass in the right hand. The patient suffered from Alzheimer disease as a result of several strokes, and that is the reason why he did not remember any possible trauma. He had been receiving antiplatelet therapy with acetylsalicylic acid 300 mg per 24 hours for 6 years before the first medical appointment. He presented with a great, soft, fluctuant, and painful mass on the palm of hand when he was palpated (►Fig. 1). The mass caused paresis and loss of strength in the second and third fingers. A magnetic resonance imaging (MRI) displayed a well-circumscribed, subcutaneous lesion of 7 × 4 × 3 cm with a multiloculated aspect containing multiple fluid–fluid levels, suggesting areas of hemorrhage surrounded by a marked hypointense pseudocapsule and centered on the second and third deep digital flexor tendons. The mass was finally completely removed by microsurgery (►Fig. 1). Frozen section was negative for malignancy, and the mass was completely excised. The patient had a complete recovery after 3 months. Histopathological examination showed a nonneoplastic lesion characterized by extensive hemorrhaging associated with numerous macrophages, hemosiderophages, fibrosis, and cystic degeneration, with abundant acellular fibrin and evidence of pseudocapsule. These findings were consistent with the diagnosis of CEH.

Malignancy is very unusual, but a careful follow-up is necessary because of angiosarcoma occurring in a CEH. No definitive etiology has been described for CEH, and it may develop either spontaneously or in regions with previous trauma or surgery. It has been speculated that an initial

trauma could displace skin and subcutaneous fatty tissue from underlying tissue, leading to the formation of blood-filled cysts surrounded by dense fibrous tissue. Continued inflammation under this fibrous capsule, including the cellular breakdown products of leukocytes, erythrocytes, and platelets, causes further damage and bleeding from capillaries.² Lesions are predominantly located on the lower extremities and on the trunk. The range of clinical latent periods is wide, ranging from 1 month to 57 years.² Two cases of CEH

Fig. 1 The patient hand with a mass in the first medical appointment and mass removed immediately from the hand (7 × 4 × 3 cm).

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affecting soft tissues of the hand had been previously reported, one in the finger³ and another in the ulnar edge.⁴

Although rare, CEH should be included in the differential diagnosis of a slow-growing soft tissue mass of the hand, particularly in individuals with a subacute history of trauma or surgery, mainly when the patient presents a disease that could inhibit his pain.

It is very difficult to differentiate this lesion from malignant tumor because in both cases the mass slowly expands and occasionally erodes the bone. Although MRI is a good diagnostic modality for CHE, which often shows a mixture of low and high intensity areas on T1- and T2-weighted images, it is difficult to distinguish these lesions from malignancy. Therefore, histopathological diagnosis is necessary to definitively establish the diagnosis.

CEH should be managed by complete surgical resection, as incomplete removal may lead to recurrence. Preoperative arterial embolization has been reported to reduce intraoperative bleeding and allow for easier surgical excision.

In conclusion, we have presented an extremely rare case of a large CEH in the hand. This disease may be considered to be

a late complication after trauma or surgery regardless of how many years have passed since the index event.

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