appearance of the calcification had become mottled (Fig. 3), and the patient’s C-reactive protein level decreased gradually. After one week of treatment, the patient experienced a complete resolution of pain and exhibited a full range of motion without difficulty. Follow-up radiographic findings after two months showed spontaneous resolution of the calcification (Fig. 4) [5].

Acute calcific tendinitis of the DIP joint is a rare condition, and, to the best of our knowledge, has not previously been reported in this anatomical location. Careful attention to the history of the patient and simple radiography helped us to diagnose this case of acute calcific tendinitis correctly. Misdiagnosis of this disease can lead to unnecessary surgical treatment and delay symptom relief. Based on reports of this condition in other regions, such as the shoulder, elbow, and wrist, conservative management with NSAIDs and a local injection of an anesthetic agent and a corticosteroid were able to relieve the symptoms dramatically in our patient. In light of our experience, acute calcific tendinitis of the hand should be considered as part of the differential diagnosis of a painful finger joint.

References

1. Dilley DF, Tonkin MA. Acute calcific tendinitis in the hand and wrist. J Hand Surg Br 1991;16:215-6.
2. Harris AR, McNamara TR, Brault JS, et al. An unusual presentation of acute calcific tendinitis in the hand. Hand (N Y) 2009;4:81-3.
3. Shields JS, Chhabra AB, Pannunzio ME. Acute calcific tendinitis of the hand: 2 case reports involving the abductor pollicis brevis. Am J Orthop (Belle Mead NJ) 2007;36:605-7.
4. Lee HO, Lee YH, Mun SH, et al. Calcific tendinitis of the hand and foot: a report of four cases. J Korean Soc Magn Reson Med 2012;16:177-83.
5. Holt PD, Keats TE. Calcific tendinitis: a review of the usual and unusual. Skeletal Radiol 1993;22:1-9.

Multiple Epidermal Cysts in the Volar Skin of the Thumb

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Epidermal cysts most commonly occur in hair-bearing areas, such as the scalp, face, neck, trunk, and scrotum, where many pilosebaceous glands are present [1,2]. Epidermal cysts do not commonly develop in the palmar and plantar skin due to the absence of pilosebaceous glands. The etiology of epidermal cysts on the palms and soles may not involve inflammation of the hair follicle, but the traumatic implantation of epidermal elements [1,3]. In this report, we describe a case of multiple epidermal cysts.
that developed in the volar skin of the thumb.

A 53-year-old man visited our outpatient plastic surgery clinic, presenting with a slow-growing protruding mass on the left thumb (Fig. 1). He was a carpenter by occupation, and the mass developed after recurrent mechanical trauma by hammering for several decades. The 2.5 × 2-cm mass was located on the volar side of the distal phalanx of the left thumb. Upon physical examination, the mass was movable, without tenderness, redness, or a sense of warmth.

We performed a simple X-ray of the hand to evaluate potential bony abnormalities and ultrasonography to determine the characteristics of the mass. The simple X-ray showed a normal bony appearance without bony erosion due to mass effect. We also found three subcutaneous low echoic masses on ultrasonography (Fig. 2). The overlying skin was incised horizontally and four masses were resected (Fig. 3). Mild adhesion was noted between the masses and the surrounding tissue, which was completely resected. The light microscopic examination of hematoxylin-eosin-stained sections was performed for all masses, which were diagnosed as epidermal cysts by a pathologist (Fig. 4). The wound was closed directly and followed up for two weeks. No complications, such as dehiscence, necrosis, hematoma, tingling sensation or hypoesthesia, or motility dysfunction occurred.

Epidermal cysts usually result from inflammation around pilosebaceous follicles [4]. However, no pilosebaceous follicles are present in the skin of the palm and the sole of the foot. Epidermal cysts in the palmar and plantar skin have been assumed to result from the implantation of epidermal fragments due to a penetrating injury or another form of epidermal trauma [1,5]. Recently, some palmar and plantar epidermal cysts have been reported to be caused by human papilloma virus (HPV) infection [4,5]. The pathophysiology of the epidermal cyst in this patient was presumed to be the implantation of an epidermal fragment, since the patient in this case had a history of recurrent occupational mechanical trauma [1,3]. We did not test for HPV infection because the patient did not present any symptoms or signs thereof.

Epidermal cysts in the palmar and plantar skin are easily confused with warts or calluses. Surgeons should be aware of the possibility of epidermal cysts in palmar and plantar skin and be able to diagnose them correctly and design an appropriate treatment strategy.
Fig. 4.
A postoperative biopsy showed keratin material (KM) surrounded by stratified squamous epithelium (SE) and a granular cell layer adjacent to the keratin-containing cyst lumen. The result was compatible with an epidermal cyst. H&E stain. (A) × 40. (B) × 100.

References

1. Shimizu Y, Sakita K, Arai E, et al. Clinicopathologic features of epidermal cysts of the sole: comparison with traditional epidermal cysts and trichilemmal cysts. J Cutan Pathol 2005;32:280-5.
2. Vergles D, Horzic M, Cupurdija K, et al. Epidermoid cyst on top of the left arm thumb. Am J Dermatopathol 2009;31:723-4.
3. Fisher BK, Macpherson M. Epidermoid cyst of the sole. J Am Acad Dermatol 1986;15:1127-9.
4. Haga T, Okuyama R, Tagami H, et al. Demonstration of human papillomavirus type 60 in an epidermoid cyst developing in the finger pulp of the thumb. Dermatology 2005;211:296-7.
5. Lee KM, Park JH, Min KH, et al. Epidermal cyst on the sole. Arch Plast Surg 2013;40:475-6.