

A Case of a Traumatic Epidermal Cyst Containing Glass Pieces

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We report a case of a 40-year-old man with a traumatic epidermal cyst on the lateral malleolus. It was unusual that the cyst contained glass pieces as a foreign body, which did not induce foreign body reaction in both clinical and histopathological aspects. To our best knowledge, this is the first case of an epidermal cyst to manifest as a foreign body cyst containing glass pieces in cystic contents. (*Ann Dermatol* 12(2) 117~118, 2000).

Key Words : Epidermal cyst, Traumatic epidermal cyst

An epidermal cyst is the most common cyst encountered in the skin. It is usually the result of inflammation around a pilosebaceous follicle, but it is sometimes from the deep implantation of epidermal fragments by a penetrating wound¹. Rarely, it is sometimes caused by a developmental defect in Gardner's syndrome and naevoid basal cell carcinoma syndrome^{2,3}.

We report a patient with a traumatic epidermal cyst containing glass pieces introduced into the dermis through a lacerated wound. This is believed to be the first report of a glass-containing epidermal cyst presented as a foreign body.

CASE REPORT

A 40-year-old male patient visited our clinic to remove a protruding mass on the lateral malleolus of the right foot. A year and a half prior to this visit, he had trauma on his leg when he accidentally fell on the floor. At the time, he received multiple lacerat-

ed wounds on the leg, where several pieces of a broken glass were embedded into the leg. He tried to remove them by himself, but two broken pieces of glass were left in the wound of the malleolus. However, he did not receive any medical assistance because the wounds healed spontaneously without bothering symptoms. Prior to his visit, a small nodular mass was growing slowly to produce a round mass without any problems in the region. Recently, he noticed a protruding yellowish spot on the center of the mass.

On examination, it was a 1.5 × 1.5 cm sized, dome-shaped, movable mass with a yellowish central punctum. Through the punctum, cheesy keratinous materials were evacuated by squeezing the mass with minor pressure. Two large pieces of glass were found in the cystic contents during our operation to remove the mass (Fig. 1). A skin biopsy revealed the typical features of an epidermal cyst without foreign body inflammatory reaction or granuloma formation (Fig. 2).

DISCUSSION

Traumatic epidermal cysts of the skin are not rare¹. These cysts occur most often on exposed sites such as the palms, fingers and soles, and are especially prevalent in those with occupations that are predisposed to this injury⁴. The genesis of epidermal cysts has not been fully understood, but they are known to develop by different mecha-

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Fig. 1. A protruding cystic mass containing glass pieces in cystic contents on the malleolus. Inlet two pieces of glass removed by operation.

nisms, such as implantation of an epidermal component; occlusion of pilosebaceous follicles; formation of embryonic rests⁸; and foreign body granuloma⁵. Recently, several cases have been reported to suggest implication of papillomavirus (HPV) type 60 in a palmoplantar epidermal cyst⁶.

Traumatic epidermal cysts were reported more frequently on the palms than soles^{7,8}. However, no report has been noted on the occurrence of an epidermal cyst on the malleolus of the foot as experienced here. It is supposed that the epidermal component was introduced into the dermis by direct inoculation through a lacerated wound in this case. Interestingly, there was no inflammatory reaction to foreign body introduction into the dermis in both clinical and histopathological aspects. It is supposed that the inflammatory reaction was not induced because the glass pieces were encapsulated completely by a cystic wall that separated them from the surrounding dermis. It is believed that the presence of glass pieces in cystic contents as a foreign body has not been reported in the case of the traumatic epidermal cyst.

The case reported here is unusual in that an epidermal cyst occurred on the malleolus of the foot through a lacerated wound, and that it contained broken pieces of glass as a foreign body.

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