

Epidermal Cyst in the Scrotum Successfully Treated while Preserving the Testis: A Case Report

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Key Words

Epidermal cyst · Epidermoid cyst · Scrotum · Scrotum mass

Abstract

A 66-year-old male was referred to our hospital for further examination of a scrotal mass. Because of the risk of testicular cancer, we first clamped the vessels as a course of higher orchiectomy. Then, we approached the tumor through the scrotum and successfully resected it while preserving the testis. A histopathological diagnosis revealed an epidermal cyst. We herein report a rare case of an intrascrotal epidermal cyst successfully treated while preserving the testis.

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Introduction

Epidermal cysts are the most common benign epithelial cysts and are generally thought to have nonmalignant potential [1]. In most cases, epidermal cysts usually occur in the skin of the scalp, ear, face, and back [2]. We herein report an uncommon benign entity of an epidermal cyst in the scrotum.

Case Presentation

A 66-year-old man was referred to our hospital for further examination of a right scrotal mass. One year before his initial visit, he had noted the right scrotal mass, which had gradually increased. The mass was separated from the testis and epididymis with rubber hardness. He had no remarkable past history except for hyperlipidemia, diabetes mellitus, and hypertension.

Laboratory Data and Imaging Findings at the Time of Admission

The hematological and biochemical data showed no abnormal findings. Tumor markers of testicular cancer were also within normal limits (HCG <0.1 mIU/ml, HCG- β <0.1 ng/ml, AFP 5 ng/ml, and LDH 170 U/l). Ultrasonography and MRI showed a scrotum mass separated from the testis (fig. 1, fig. 2).

Operative Procedure

In December 2015, the patient underwent mastectomy of the scrotum (fig. 3). To avoid the risk of dissemination if the mass was adherent to the testis as a testicular tumor, we first secured the spermatic cord until we could confirm the separation between the testis and the mass. Then, we performed a pathological diagnosis on a frozen section to rule out malignancy. Due to the diagnosis of an epidermal cyst, we resected the intrascrotal mass with the adhering skin.

Pathological Findings

The resected mass weighed 169 g and measured 11.0 × 7.5 × 1.0 cm (fig. 4). It was cystic and contained keratotic fluid. Histologically, the cyst wall was covered with keratinizing squamous epithelium without atypia (fig. 5).

Postoperative Course

No adverse perioperative event was observed. The patient has not experienced recurrence for 4 months following the resection of the intrascrotal mass.

Discussion

Epidermal cysts are the most common benign epithelial cysts and are generally devoid of malignant potential [1]. They consist of a sac lined by stratified squamous epithelium filled with laminated keratin, cholesterol crystals, and debris [3, 4].

Epidermal cysts are approximately twice as common in men as in women [5]. They typically occur in the skin of the scalp, ear, face, and back [2]. In the urological field, epidermal cysts have been reported in the perineum, penis, testis, and scrotum. Only 25 cases of epidermal cysts in the scrotum have been reported in Japan [6].

On MRI, epidermal cysts are described as high-intensity, well-defined solid masses surrounded by a low-signal capsule on T2-weighted imaging [7]. Our case showed the same findings. Although patients may present with these findings, the preoperative diagnosis of an epidermal cyst is very difficult, especially in the scrotum. According to some reports, epidermal cysts in the scrotum were resected with the testis under a suspicion of testicular cancer [8].

Although the prognosis is good and epidermal cysts are considered not to have malignant potential, malignant transformations of basal cell carcinoma or squamous cell carcinoma

ma from epidermal cysts have been reported [9]. Complete local excision is considered to be the treatment of choice for an epidermoid cyst, and careful observation is required [10, 11].

Conclusion

We herein described a case of an epidermal cyst that was successfully resected while preserving the testis.

Statement of Ethics

Written informed consent was obtained from the patient in this study.

Disclosure Statement

The authors declare that they have no competing interests.

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Kondo et al.: Epidermal Cyst in the Scrotum Successfully Treated while Preserving the Testis: A Case Report



Fig. 1. Ultrasound findings revealed that the intrascrotal mass (measuring 8 cm in diameter) showed uniformity with a low-echoic lesion (arrow).

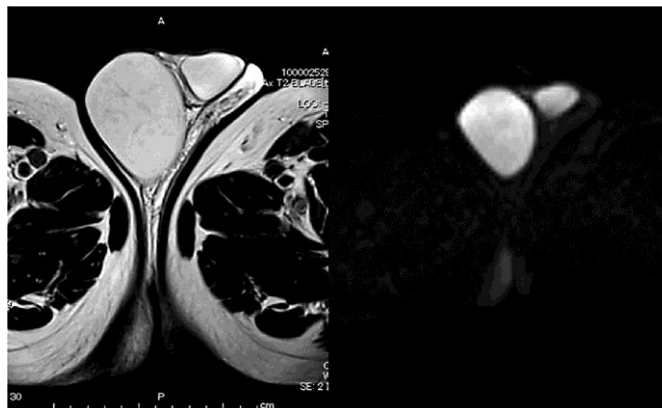


Fig. 2. T2-weighted (left) and diffusion-weighted (right) MR images. The mass was separated from the testis with high signals in the T2-weighted image.

Kondo et al.: Epidermal Cyst in the Scrotum Successfully Treated while Preserving the Testis: A Case Report

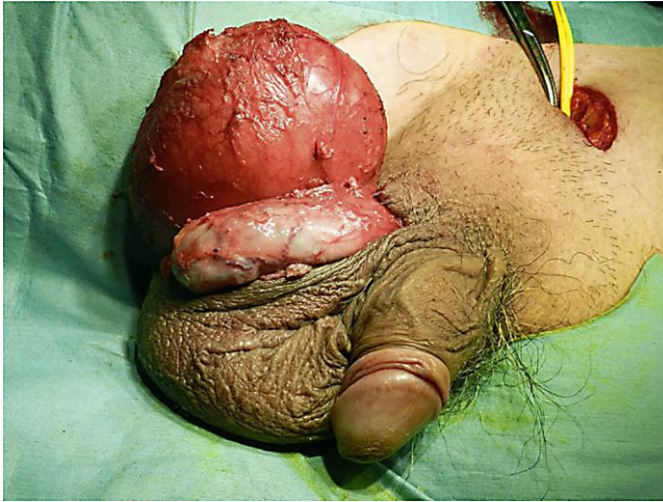


Fig. 3. Intraoperative findings. The mass was separated from the testis.



Fig. 4. A surgical specimen of the intrascrotal mass resected with the skin.

Kondo et al.: Epidermal Cyst in the Scrotum Successfully Treated while Preserving the Testis: A Case Report

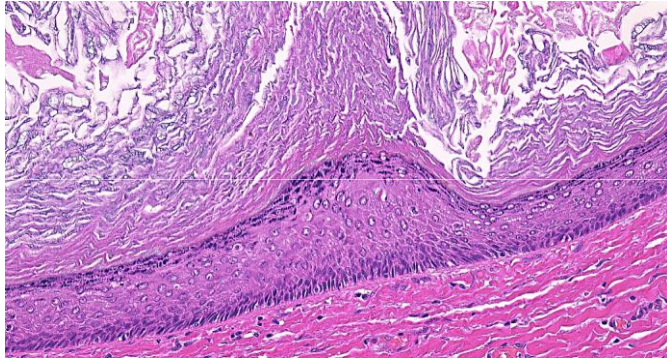


Fig. 5. Histologically, the cyst contained keratin flakes and its wall was covered with keratinizing squamous epithelium.