

Presternal Giant Epidermal Cyst : about 2 cases

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Kyste épidermique présternal géant : à propos de 2 cas

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R É S U M É

Prérequis : Le kyste épidermique est une lésion bénigne, fréquemment cutanée. Sa croissance est habituellement lente et son siège de prédilection est cervico-cranial. Le kyste épidermique géant et la localisation présternale sont exceptionnels, notamment chez l'enfant.

But : Les auteurs rapportent deux observations pédiatriques, discutent l'étiopathogénie de cette entité et soulignent ses problèmes diagnostiques.

Observations : Deux garçons âgés de 2 1/2 ans et de 3 ans, ont été admis pour une volumineuse masse présternale constatée par les parents en période néonatale et ayant augmenté de volume suite à un traumatisme minime. L'examen physique a trouvé une masse liquidienne, indolore, mobile, arrondie, mesurant 70 millimètres de diamètre, siégeant sous le manubrium sternal. La trans-illumination était positive. L'échographie et l'imagerie par résonance magnétique ont objectivé une tumeur kystique présternale, pariétale à paroi fine, sans extension intra-thoracique. Une exérèse chirurgicale complète de la tumeur a été réalisée dans les deux cas. L'étude anatomopathologique a permis de confirmer le diagnostic de kyste épidermique. Les suites opératoires ont été simples avec un recul respectivement de 18 mois et 5 ans sans récurrence.

Conclusion : Le kyste épidermique présternal géant est exceptionnel (1%) et peut poser des problèmes diagnostiques. L'imagerie est contributive et permet un diagnostic précoce. Le risque de dégénérescence maligne doit conduire à l'exérèse chirurgicale.

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S U M M A R Y

Background: Epidermal cysts are a common benign lesion, occurring often above the shoulder and within the face and the scalp. Presternal site and huge volume are quite rare, especially in children.

Aim : The authors report on two paediatric cases, discuss etiopathogenesis and diagnostic difficulties.

Cases : A 2,5 and 3-year-old boys were admitted for voluminous subcutaneous tumour of the chest. The lesions had appeared since neonatal period with rapid growth after a minimal trauma for the last year. The physical examination found a great preternal cystic mass of 70 mm in diameter which is painless round and mobile. Ultrasonography and magnetic resonance imaging, showed a subcutaneous cystic mass with no mediastinal involvement or other localization in both. Complete surgical excision including the overlying skin with direct cutaneous closure was performed in both cases. The histological examinations confirmed the diagnosis of epidermal cyst. Postoperative courses were uneventful with no recurrence during respectively 18 months and 5 years follow-up periods.

Conclusions : Giant preternal epidermal cyst is uncommon and can raise diagnostic problems. Imaging investigations facilitate accurate diagnosis. Because of malignant degeneration, surgical excision should be mandatory.

Mots-clés

Kyste épidermique – kyste épidermoïde

Key- words

Epidermal cyst – epidermoid cyst

الكيسية البشرية الضخمة : دراسة حول حالتين

الباحثون : منيف. ق. - جماعي. ر. - فيتوري. ف. - ساحلي. س. - حمزاوي. م.

الكيسية البشرية هي إصابة حميدة جلدية. الهدف من هذه الدراسة هو مناقشة السببية المرضية لهذا الكيان وأستعراض مشاكله التشخيصية. تشتمل دراستنا على حالتين عند طفلين أجري لهما تخفيظا بالصدى و تصوير بالرنين المغناطيسي الذان أكدا وجود ورم متكيس. خضع المريضان للجراحة من أجل أستئصال كامل للورم و أكد التشريح المرضي طبيعة الكيسية البشرية في الحالتين. لم نسجل أي تنكس عند المريضين و ذلك 18 شهرا و 5 سنوات بعد إجراء العملية.

الكلمات الأساسية : كيسية بشرية

Epidermal cysts are a common benign lesion, occurring often above the shoulder and within the face and the scalp. Presternal site and huge volume are quite rare, especially in children. The authors report on two paediatric cases, discuss etiopathogenesis and diagnostic difficulties.

METHODS

Two cases of giant epidermal cyst were managed in our department during the last 10 years. Their medical records were retrospectively reviewed. Radiologic investigation consisted on ultrasonography in two and magnetic resonance imaging in one case. Surgical excision was indicated for both.

RESULTS

A 2 1/2 and 3-year-old boys were admitted for voluminous subcutaneous tumour of the chest. The lesions had appeared since neonatal period with rapid growth after a minimal trauma for the last year. The physical examination found a great presteral cystic mass of 70 mm in diameter which is painless round and mobile (figure n°1). Ultrasonography and magnetic resonance imaging (figure n°2), showed a subcutaneous cystic mass with no mediastinal involvement or other localization in both. Complete surgical excision (figure n°3) including the overlying skin with direct cutaneous closure was performed in both cases. The histological examinations confirmed the diagnosis of epidermal cyst (figure n°4). Postoperative courses were uneventful with no recurrence during respectively 18 months and 5 years follow-up periods.

Figure 1 : presteral cystic tumour



Figure 2 : magnetic resonance imaging showed a subcutaneous cystic mass hypersignal on T1 (A) and hyposignal on T2 (B).

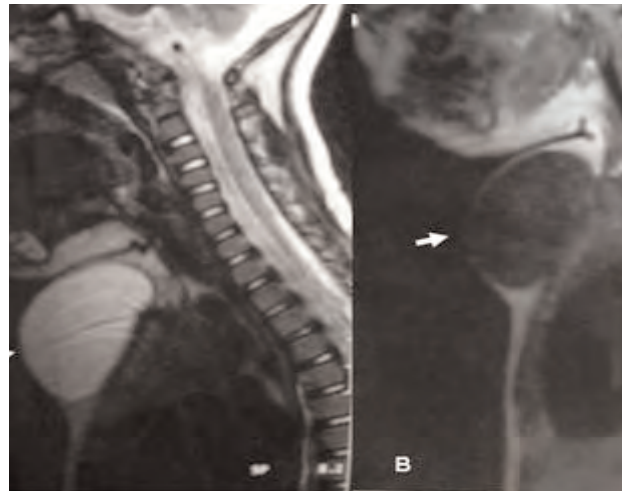


Figure 3 : macroscopic view of the mass after excision

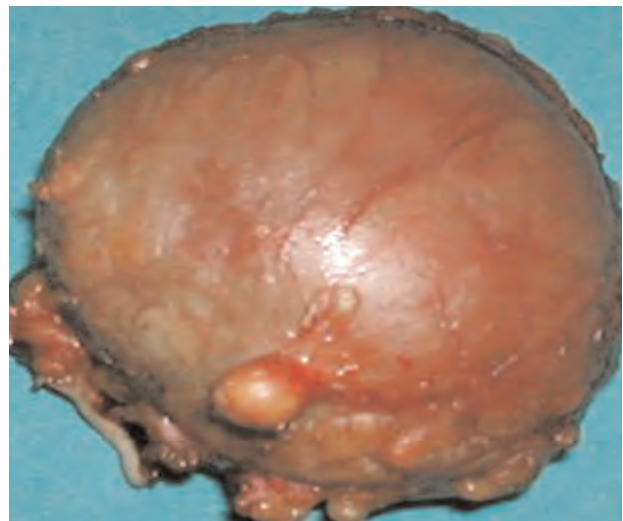
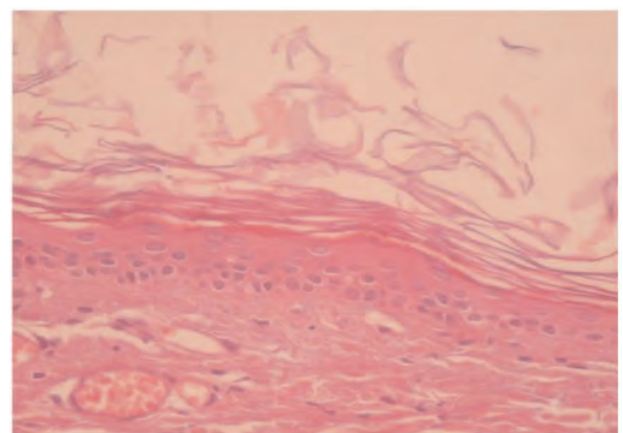


Figure 4 : histological view shows the cystic wall lined by keratinized stratified squamous epithelium with keratinous material (Haematoxylin eosin, magnification x 200)



DISCUSSION

Epidermal cyst is a benign, slowly growing, intradermal or subcutaneous benign tumors with wall composed of true epidermis (1). The histogenesis of epidermal cysts is unclear. Epidermal cysts arise from epidermis inclusion into the dermis or subcutis probably dysontogenetically (3, 5-7). In our cases, chest trauma leads to rapid growth of the cysts and seems to be an adjuvant etiopathogenic factor. The lesion usually presents as an incidental finding of small painless mass. It occurs frequently on the face, scalp and neck (1-3). Clinically, it appears as a circumscribed, firm, smooth, nontender mass, measuring less than 20 mm on average (2, 4). Complications are possible and include infection and rupture of the cyst (1, 5, 8). Calcifications are rare (1, 2, 5). As in our cases, preternal localization and huge volume are quite rare and can raise diagnostic problems, especially in children (1, 4). Imaging investigations facilitate a more accurate diagnosis (1, 4, 7). Ultrasonography shows a well-defined hypoechoic mass with

hyperechoic rim and center. The ongoing deposition of keratinized material inside the cyst creates an echoic whorl forming an onionskin typical appearance, seen in ultrasound scan and magnetic resonance imaging studies. Histological examination confirmed the diagnosis and show that the wall of the cyst is lined by keratinized stratified squamous epithelium. The cyst is filled with keratinous material arranged in laminated layers. There were no dermal elements like cutaneous adnexal structures such as hair follicles or sebaceous glands (1, 3, 6, 7). Because of the risk of malignant degeneration, complete surgical excision of the tumor should be performed (9).

CONCLUSION

Giant preternal epidermal cyst is uncommon and can raise diagnostic problems. Ultrasonography and magnetic resonance imaging constitute the methods of choice for the diagnosis. Surgical excision should be mandatory.

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