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BRANCHIAL CYST IN A BUFFALO CALF

(With 7 Figs.)

By

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كيس خيشومي في عجل جاموس

ماريون يوسف ، فتحي مكاري ، انراهيم حسين

لقد شخصت حالة كيس خيشومي في عجل جاموس عمره ٦ شهور وقد كانت عبارة عن ورم أعلي الرقبة خلف الفك السفلي من الجانب الأيسر ، وعند بلل الورم بإبرة أعطسي سائل أبيض يشبه الحليب في المظهر . هذا وقد تم إزالة الورم سليما حيث كان كبروي الشكل ويبلغ قطره حوالي ٨ سنتيمترا وقد تبين بالفحص الهستولوجي أن الورم عبارة عن نفايا خيشومية جنينية يحترق جدارها علي خلايا لها القدرة علي الإفراز ويجدر الإشارة الي أن مثل هذه الأكيامس لابد من إزالتها تماما والا ستعود الظهور أو تكون ناسورا يخرج منه الإفراز كذلك يجب أن يفرق بينها وبين الأورام التي قد تظهر في مثل هذا المكان كالخراجات والسرطانات وأمراض الغدد الليمفاوية والحبيصلات الناتجة من إصابة الغدد والتنويرات اللعابية . ويمكن الإستعانة بالبلل والفحص الهستولوجي والإشعاعي بجانب الفحص الإكلينيكي للتمييز بين مختلف الأورام في هذه الأماكن .

Branchial cysts (Branchial cleft cysts) develop from vestiges of the branchial arch system of the fetus and are lined with secretory membrane (WILLIS, 1958; ANON., 1964; KARBE and NIELSEN, 1966).

Clinical findings:

A 6-months-old male buffalo calf was presented to the clinic with a marked swelling at the mandibular region; lateral and slightly caudal to the larynx, on the left side (Fig. 1). The swelling was circumscribed in shape and cystic in consistency with the skin tensed over it. Exploratory puncture gave milk-like fluid. Sialography, showed no connection between the swelling and any of the salivary glands or their ducts.

Surgery:

Excision of the swelling was performed under effect of local infiltration analgesia after tranquillization with Rompun in a dose of 0.1 mg/kg Bwt. intramuscularly. Careful

H.A. YOUSSEF, et al.

dissection enabled total excision of the intact swelling, which was spheroidal in shape, about 8 cm. in diameter (Fig. 2) and full of milk-like fluid (Fig. 3). The incision was closed as usual and the skin sutures were removed 10 days posoperatively (Fig. 4).

Histologic findings:

The wall of the excised cyst was lined by stratified squamous epithelium, contain mucous glands, and surrounded by connective tissue capsule (Fig. 5 a, b&c).

Differential diagnosis and conclusions:

It is important to differentiate between the branchial and the salivary cysts, where successful treatment of each condition requires a different approach (BERGMAN, 1960; ANON, 1964 and KARBE and NIELSEN, 1965). The salivary cyst contains saliva which leaks from an injured salivary structure into the surrounding connective tissue (HULLAND, 1964). Therefore, the salivary cyst is not lined by epithelium, but by granulation tissue or by more mature connective tissue (KARBE and NIELSEN, 1965). Branchial cysts are lined by either a stratified squamous epithelium, or pseudostratified columnar epithelium (WILLIS, 1958). The cysts are to be differentiated also from lymphadenopathy, abscesses, tumors and aneurysmal dilatation of the external maxillary vein. It has to be emphasized that the branchial cysts must be excised completely, otherwise recurrence will occur or a permanent fistula may be formed because of the secretory activity of their epithelial lining.

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BRANCHIAL CYST

LEGENDS

- Fig. 1:** Branchial cyst a male buffalo calf (Lateral and slightly caudal to the larynx).
- Fig. 2:** The intact branchial cyst after total excision.
- Fig. 3:** The excised branchial cyst [A) the opened cyst & B) the contents; milk-like fluid].
- Fig. 4:** The site of the operation, 10 days postoperatively after excision of the branchial cyst.
- Fig. 5 A:** Microscopic structure of the wall of the branchial cyst (1: Stratified squamous epithelium & 2: Mucous glands) (H E Stain, X 63).
- Fig. 5 B:** Higher magnification of the stratified squamous epithelium lining the branchial cyst. (H E Stain, X 250).
- Fig. 5 C:** Higher magnification of the mucous glands in the wall of the branchial cyst. (H E Stain, X 160).



