

Radiographical Examination and Treatment of Wattle Cyst in Goats and Sheep

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Abstract: The present study was carried out on 7 kids and 2 lambs with wattle cysts. Full case history, clinical and radiographical examinations were performed. Three methods of treatment were tried including; surgical excision (Group 1), lancing and dressing with povidone iodine (Group 2) and aspiration followed by intra-cystic injection of dexamethason and crystalline penicillin (Group 3). Results showed that wattle cyst is a congenital defect affects mainly male kids especially Nubian and Nubian crossbred. The cyst may be unilateral or bilateral locating at the base of wattle. Clinically, the cyst appeared as painless, movable, fluctuating and circumscribed subcutaneous swelling of 3-10 cm in diameter. The skin over the cyst was normal with presence or absence of the wattles. Radiographically, the cyst appeared as subcutaneous circumscribed swellings without any connection with the surrounding tissues. Radical excision of the cyst is the best treatment for wattle cyst.

Key words: Wattle • Cyst • Goats • Sheep

INTRODUCTION

Sheep and goats are important parts of livestock agriculture in Egypt, producing milk, meat, hides and wool. Skin lumps are common in both sheep and goats and their differential diagnosis is essential for successful treatment. Many economic losses are associated with these lumps due to damage of the hides and cost of treatment.

Wattle cyst is a congenital defect but may be not apparent until several months of age [1]. It occurs at the base of wattle of goats especially in Nubian and Nubian crossbreeds [2, 3].

The available literatures concerning this defect are scarce, therefore the present study describes this congenital defect in both goats and sheep with respect to the treatment.

MATERIALS AND METHODS

Nine kids and lambs had fluctuating swellings at the level of wattle were admitted to the surgery clinic at Faculty of Veterinary Medicine, Cairo University. Full case history and clinical examination were performed. Contrast radiographical examination using 10 ml of

iodinated contrast media (Urographin®, SAG, Germany) given intracystic was carried out. Both lateral and ventrodorsal views were carried out by x-ray machine (Fischer, Germany). The radiographic setting factors were ranged from 45 to 50 kVp and 10 mAs. Aseptic aspiration of the cyst by a sterile syringe was carried out in all cases.

Regarding treatment, the affected animals were randomly divided into three groups as follow:

- Group (1) in which radical excision under local analgesia using lidocaine HCl 2% solution (Lidocaine HCl®, Hospira, USA) and suturing of the subcutaneous tissue and skin as usual was carried out (n = 3).
- Group (2) in which lancing of the swelling, evacuation of the content and dressing with povidone iodine solution (Betadine® skin solution, Nile Co., Egypt) were carried out (n = 3).
- Group (3) in which aseptic aspiration of the content followed by injection of both dexamethason (Dexamethason®, Arab Co., Egypt) and crystalline penicillin (Penicilline G sodium®, CID, Egypt) was performed (n = 3). All data were recorded for each case.

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RESULTS AND DISCUSSION

Wattle cyst was recorded in 7 Nubian and Nubian crossbred kids and two lambs. This means that wattle cyst mainly affects goats especially Nubian and Nubian crossbred although sheep are at risk. Similar findings were previously recorded [2, 4].

The history of all cases documents that the examined animals had wattle cysts since birth. The age of the affected animals ranged between 7 days and seven months. This means that wattle cyst is a congenital defect and may be not apparent until several months of age. This is in agreement with a recorded result by Smith [3].

Concerning the gender of affected animals, 6 animals were males while 3 were females. Therefore, male animals are at high risk than females.

Clinically, the cyst appeared as painless, movable, fluctuating and circumscribed subcutaneous swelling of 3-10 cm in diameter (Figures 1A and B).

Both unilateral wattle cyst locating at the base of right wattle ($n = 4$) or left one ($n = 4$) and bilateral wattle cysts ($n = 1$) were observed.

The skin and hair over the cyst were normal with the presence ($n = 8$) or absence of the wattles ($n = 1$).

Aseptic aspiration of the cysts revealed clear and odorless straw yellow fluid in all examined animals except one kid which had intra-cystic watery pus (Figure 2A). Bad interference by the owner was the cause of changing the cyst to an abscess due to pyogenic infection.

Although wattles are absent in a lamb, wattle cyst was recorded at the anatomical site of the right wattle (Figure 2B). This means that wattle cysts can be developed even with the absence of wattle itself.



Fig. 1: (A): Right wattle cyst in a 15-day-old Nubian male kid. (B): Left wattle cyst in a 7-month-old Nubian goat.

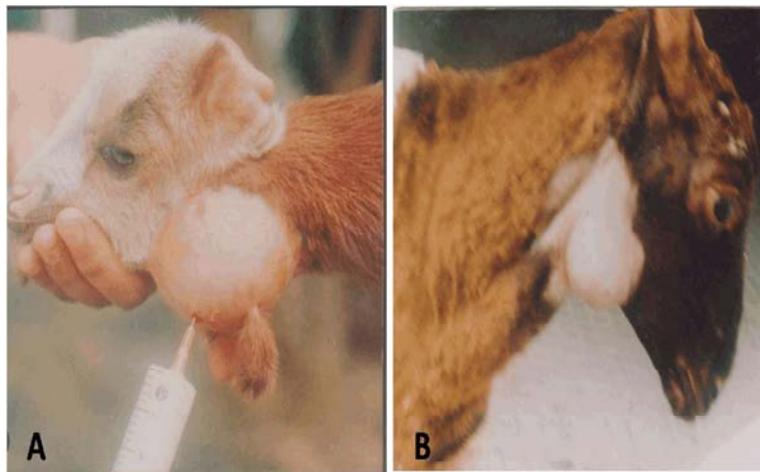


Fig. 2: (A) Infected left wattle cyst in a 10-day-old Nubian crossbred kid. (B) Right wattle cyst in one-month-old lamb with absence of the wattle



Fig. 3: Lateral positive contrast radiograph of a wattle cyst in a lamb showing no connection between the cyst and its surrounding tissues.

Contrast radiographical examination of the cysts was carried out to detect any connection between the cyst and its surrounding tissues. The radiographs revealed subcutaneous circumscribed swellings without any connection with the surrounding tissues (Figure 3). Similar radiographic findings were reported before [5].

Regarding treatment of the cyst, radical excision (Group 1) and lancing of the cyst and dressing with povidone iodine solution (Group 2) resulted in recovery of the treated animals within one and two weeks respectively. Whereas, aspiration of the cyst and intracystic injection of dexamethason and crystalline penicillin (Group 3) led to its recurrence. Therefore, Radical excision of the cyst under local analgesia is the best treatment for wattle cyst in goats and sheep.

The excised cyst was unilocular, had thin wall and contained 15-120 ml of the cystic fluid.

In conclusion, wattle cyst should be considered in the differential diagnosis of the neck swellings in goats and sheep. Case history, cystic content and special location of the cyst are enough for this differentiation.

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