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Mixed Lipoma in a Cow

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Abstract

In the present study an adult cow was brought to TVCC, Bihar Veterinary College, Patna with a large lump about 10 inches in size on the left lateral aspect of anus. The lump started as a small nodule and gradually developed in a large mass. No treatment before was tried. Externally multiple warts like eruptions were found on the surface of the growth with many bleeding areas. Histopathological examination of the collected sample was done and it was diagnosed to be a case of mixed lipoma. After confirmation it was surgically removed and no further reoccurrence was reported.

Keywords: *Cow, mixed lipoma, mature fat cells, collagen fibres, spindle cells*

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INTRODUCTION

Lipoma is a benign tumor composed of adipose tissue (body fat) and is ubiquitous. It is the most common benign form of soft tissue tumor. There are various possible causes for it, including chemical [1], physical and pathogenic organisms. They may be found be found at different location in body of animals [2] but most common sites are the subcutaneous tissue of neck, head and shoulder. Lipomas are fairly common among animals especially aged ones. Lipoma appears as a solitary, soft, movable and painless mass which may remain stationary or grow slowly. They may range in size from small nodules to big masses. They are spherical but may be lobulated. Capsule may not be evident and the tumour may merge with the normal fat tissue. A variety of admixture of lipoma with other tissue component may be seen. These include: fibroma, angiolipoma, myelolipoma. Spindle cell lipoma is one of the unusual variant of lipomas [3].

CASE HISTORY

The present case was of a cow aged about eight years and presented to TVCC, Bihar Veterinary College, Patna with a rough surfaced lump about 12 inches in size on the left lateral aspect of anus (Figure 1). The history revealed that the lump to have been growing slowly for the last few years. The owner also reported that the lump has grown from a pea size and was not provided any treatment. On clinical examination multiple wart like eruptions were found on the surface of the growth with many bleeding areas probably due to rubbing while movement.

Fig. 1: *Showing affected Cow having Lump on the Left Lateral Aspect of Anus.*

LABORATORY DIAGNOSIS

The mass was slightly excised and on section the surface appeared oily, translucent and whitish-yellow in colour. After external examination a tentative idea of the developing

tumor was made on the basis of external appearance, size, location etc. It appeared to a case of Fat cell tumor. However, to avoid any confusion and to rule out not be a more dangerous type of tumor such as a liposarcoma, histopathology was done.

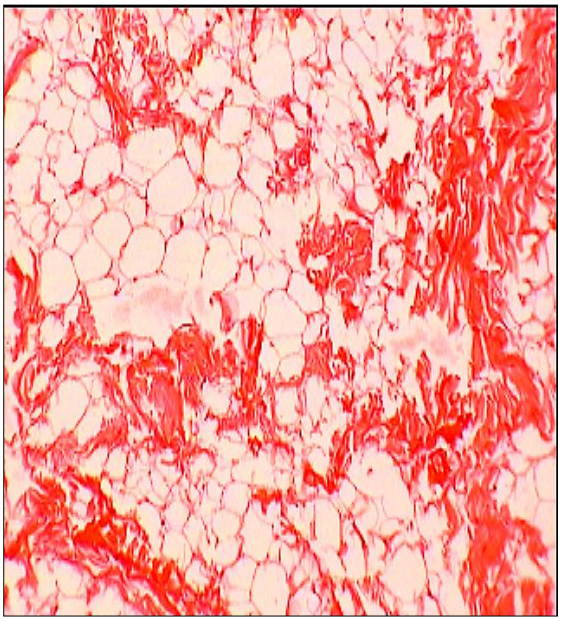

Fig. 2: *Showing Combination of Fat Cells, Collagen and Smooth Muscle Cells (H&E ×10).*

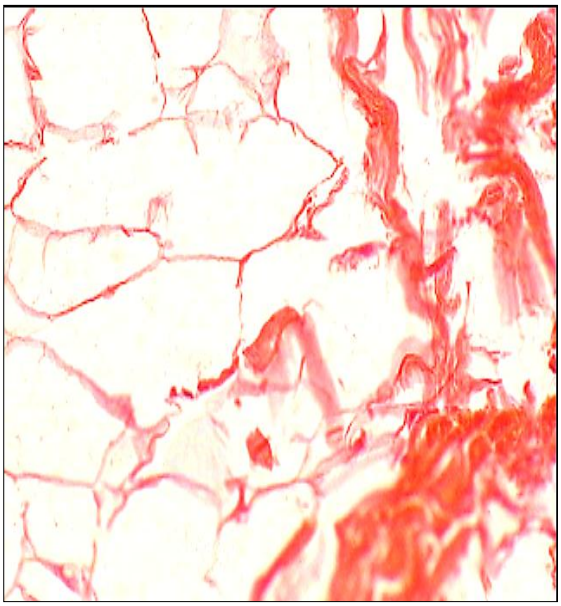

Fig. 3: *Showing a Few Mature Fat, Collagen and Spindle Cell (H&E ×40).*

Tissue was collected and fixed in 10% formalin. Formalin fixed tissue were processed routinely by paraffin embedding technique and sections 5 µ thick were cut and stained with Haemotoxylin and Eosin (H&E). Microscopically, the section revealed combination of mature unilocular fat cells admixed with mature collagen and spindle shaped smooth muscles oriented parallel to each other (Figures 2 and 3). Thus, it was diagnosed as a case of Mixed Lipoma.

TREATMENT AND DISCUSSION

For extraction of the lump posterior epidural anaesthesia (lignocaine 2%, 15 ml) between sacro and coccygeal articulations was given. The site of operation was prepared by shaving and scrubbing. Local infiltration at the site was done with 2% lignocaine. Skin incision was given and flap was made for proper apposition of the sutures. Thereafter, ligation of the blood vessel was done and the lump was surgically removed. A subcutaneous incision was made for bringing the wound apposition and suturing was done by horizontal mattress pattern. The whole process took hardly one hour. The extracted lump weighed about 7 kg. Post operatively the area was topically applied with fly repellant and antibiotics, Ceptriazine were advised I/M 3 g daily for 5 days by i/m route to avoid any infections. The treatment was quite successful and no reoccurrence was reported.

Lipomas are benign tumor that arises from mesenchymal tissue [4]. It is clearly demarcated from the normal surrounding tissues and occurs in a great variety of sites, especially subcutaneously as a solitary mass and sometimes multiple. An infiltrativelipoma is a rare variant of lipoma characterized by sheets of well-differentiated adipocytes and it has the capacity to infiltrate muscles, facial structures, articular capsules etc. The tendency to develop a lipoma is not necessarily hereditary although hereditary conditions [5]. Some predisposing factors have also been proved by earlier researchers for development of Lipoma. Important one is its association with HMG I-C gene [6]. Minor trauma can also initiate Lipoma development in animals [7], however, it is still controversial and needs further work [8].

Lipoma usually is not a very serious problem. Therefore, does not necessarily need treatment. Sometimes, rubbing of the surface

may cause bleeding and pain or it can produce hindrance in movements. Thus, it is commonly removed for cosmetic purpose. Chances of reoccurrence after removal are rare. Other than surgical method it can also be safely removed non- invasively by Liposuction [9] or chemical treatment with Steroids which are injected at the site leading to gradual lipolysis [10,11].

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