NEUROFIBROMA IN A SWAMP BUFFALO COW : A CASE REPORT

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Abstract

A swamp buffalo cow with a problem of gradual enlargement of the right eyeball during the last 2 years was reported. On clinical examination, swelling of the sclera and epiphora as well as blindness of the eyesight was observed. Surgical enucleation of the eyeball was performed successfully. Histopathological study revealed neurofibroma.

Introduction

Abnormalities in swamp buffalo might exist like other species but they are not always documented and it's rather in the form of personal communication. Further reference is not convenience and it always lacks of accuracy.

The present report was aimed to discuss about a rare case of an abnormality encountered in swamp buffalo which might be very useful for further study and reference.

Material and Method

ANIMAL : A 10 year old swamp buffalo cow belonged to a villager in Buri Ram province. During the last 2 years her right eyeball gradually developed a swelling, the eyesight deteriorated and finally it was found blind on the affected eye.

Clinical examination of the right eye revealed swelling of the sclera, opacity of the cornea and epiphora as shown in figure 1. Surgical removal of the right eyeball was decided and carried on with the goal of alleviating pain and irritation.



Figure 1. The right eyeball revealed swelling of the sclera, opacity and epiphora (arrows).

SURGICAL PROCEDURE: The animal was sedated with an intramuscular xylazine[1] injection and casted in left lateral recumbency. The external eye was flushed with sterile isotonic saline, debriding clotted blood, exudates and devitalized

[1] Rompun(R), Bayer.

tissues which were remove afterwards with surgical sponges. Regional analgesia of the right eye was accomplished by retrobulbar and auriculopalpebral nerve blocks. A drape was placed over the animal's head permitting exposure of the eye and eyelids. A lateral canthotomy was performed in order to provide additional exposure of the globe. Starting from the most exposed area, the bulbar conjunctiva was incised with scissors continuing for 360 degrees around the limbus and then retrobulbarly until Tenon's capsule was separated from the sclera. The third eyelid, extraocular muscle, vortex veins, as well as the optic nerve were incised. Once the globe was removed, hemorrhage was controlled by carefully placed ligatures. The margins and approximately 0.5 cm of the eyelids were excised for 360 degrees with special attention in removing the proper amount at the medial canthus. The wound was flushed with penicillin-dihydrostreptomcyin solution, the bulbar conjunctiva was apposed with simple interrupted suture using 1-0 chromic catgut. The remaining eyelids were closed with umbilical tape in a simple interrupted suture pattern.

Post operative care was carried out during 5 days consecutively using antibiotic for systemic treatment as well as for dressing of the affected area. Stitches over the eyelids were removed two weeks postsurgically. Healing was uneventful.

Result

HISTOPATHOLOGICAL RESULTS : Nodular formation of tumor masses was evidence. Tumor cells were spindle and fusiform shape contained oval or slender nuclei The tumor cells were capable of forming collagen and reticular fiber. These fibers formed wavy bundle and whorls. Areas of necrosis and hemorrhage were found at outer part of this mass. Neurofibroma was diagnosed as shown in figure 2.



Figure 2. Tumor cells were spindle and fusiform shape contained oval or slender nuclei.

Discussion

The case of neurofibroma in swamp buffalo was supposed to be very rare and to our knowledge it has never reported in this country. Although the process of the disease was very slow to develop but the affected organ was damage severely. The animal suffered due to pain and blindness on the affected eye if left untreated. Furthermore, she could not provide draft for the farmer. Whether this neurofibroma metastasized is unknown, however it seemed to increase in size.

แนวการพิจารณาคุณภาพ

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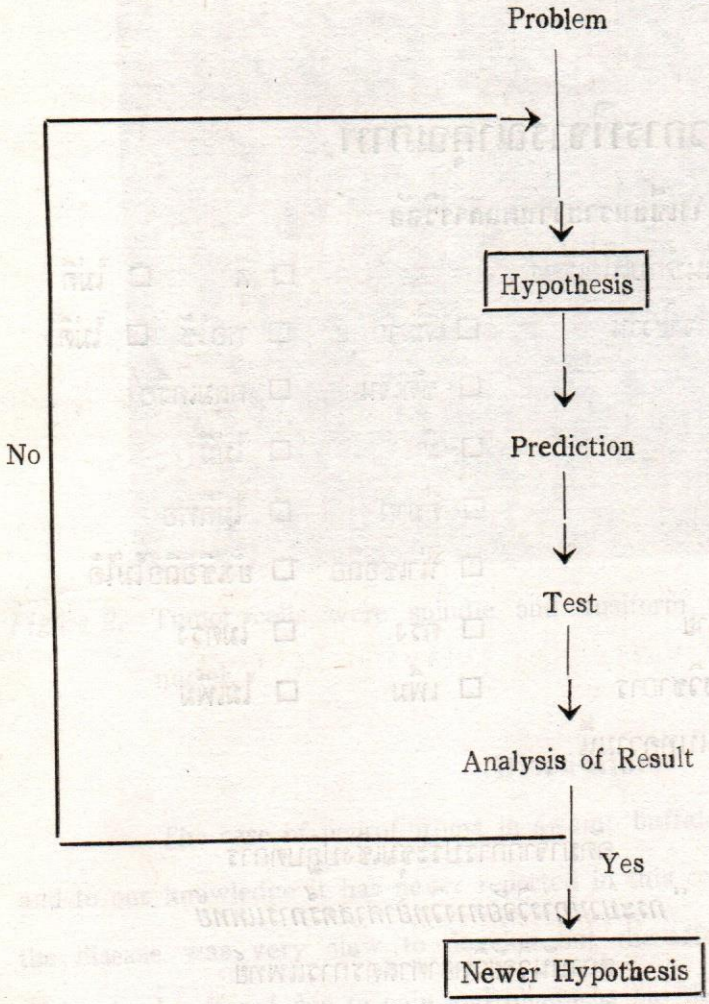
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SCIENTIFIC PROCESS



Hypothesis

Theory

Ad Hoc Theory

Phenomenological Theory

Basic Theory

Law

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