



ISSN (E): 2277- 7695

ISSN (P): 2349-8242

NAAS Rating: 5.03

TPI 2018; 7(4): 293-294

© 2018 TPI

www.thepharmajournal.com

Received: 14-02-2018

Accepted: 15-03-2018

B Priyanka

PVC, Wanaparthi, Jangaon,
Dept. of Animal Husbandry,
Telangana, India

J Raju

Chalimeda Feeds Pvt. Ltd.
Karimanagar, Telangana, India

T Parthasarathi

PVC, Lakshmidvipet, JS
Bhupalapally,
Dept. of Animal Husbandry,
Telangana, India

P Shankaraiah

PVC, Rachloor, RR Dist.,
Dept. of Animal Husbandry,
Telangana, India

Ichthyosis fetalis in a she buffalo

B Priyanka, J Raju, T Parthasarathi and P Shankaraiah

Abstract

The purpose of this report was to present the case of dystocia due to ichthyosis fetalis in a non-descriptive she-buffalo and the clinical features of ichthyosis fetalis calf. The full term primiparous non descriptive buffaloe was presented with the complaint of straining since 12 hrs. After careful physical, clinical, per vaginal examination the case was diagnosed as dystocia due to incomplete dilatation of cervix and presence of abnormal fetus in the birth canal. Following epidural anesthesia dystocia was successfully managed by per vaginal delivery and its recovery is reported.

Keywords: Ichthyosis fetalis, hyperkeratosis, dystocia, buffaloe.

Introduction

Dystocia refers to abnormal or difficult birth. It is expected to occur in about 10-15% of first-calf heifers and in 3-5% of mature cattle. Various kinds of fetal anomalies and monstrosities have been recorded in bovines (Roberts, 2004) and sometimes they cause dystocia in animals. Ichthyosis is a cutaneous keratinization disorder; most of the ichthyosis disorders are genetic in origin, affecting both man and animals (Molteni *et al.*, 2006) [3]. The name is derived from the Greek word for fish because of the fish scale-like appearance of the hyperkeratotic skin. Ichthyosis in animals is a rare congenital condition that has been reported in cattle, dogs, pigs, chickens, laboratory mice, and a llama (Ginn *et al.*, 2007; Scott, 2007) [2, 5]. Two forms of ichthyosis have been described in various breeds of cattle, ichthyosis fetalis and ichthyosis congenita. Both are caused by single autosomal recessive genes. Ichthyosis foetalis (IF) is an ectodermal dysplasia. This lethal subtype of ichthyosis is characterized by the presence of hyperkeratotic epidermal plates of various sizes covering the entire body and enclosed by inflamed fissures. Ichthyosis fetalis is the more severe and lethal form. Affected calves are dead at birth or die shortly after birth. Ichthyosis congenita is the milder form of the disease and lesions are more localized (Ginn *et al.*, 2007; Scott, 2007; Testoni *et al.*, 2006) [2, 5, 6].

Case History and Observations

A four year old full term pregnant primiparous non descriptive she buffaloe was presented to the Primary Veterinary Centre, Wanaparthi, Jangaon district of Telangana state with the history of continuous straining since last 12 hrs. Clinical examination revealed slightly raised temperature (102 °F) and pulse (90/min). On physical examination edema of the external genitalia was noticed and per vaginal examination revealed partially dilated cervix and presence of a live fetus with abnormal skin in the anterior presentation was noticed.

Treatment and Discussion

In the present case after thorough per vaginal examination the decision was taken out to relieve the dystocia by manual traction. Following epidural anesthesia (10ml, 2% lignocaine hydrochloride), cervix was manually dilated and birth canal was well lubricated with carboxy methyl cellulose sodium@20 gr/L luke warm water. After that fetal head and limbs were hold pervaginally and ropes were applied to the abnormally scaly limbs. By manual traction the live female fetus was delivered but the fetus was died 1 hour after birth. The dam was treated with 5%Dextrose normal saline 5 lits IV, Intacef(Ceftriaxone)-3 gms (IM), Melonex(Meloxicam)-0.2mg/kgb.wt(IM), Anistamin (Chlorpheniramine maleate)-10 ml (IM) for 3 days. An uneventful recovery of the dam was noticed thereafter.

Grossly, on physical examination the female fetus weighing 19 kgs having thick horny plates on its entire skin and they separated by deep fissures (Figure 1). Except for the most distal parts of the limbs and lower lip, the entire body surface was completely hairless. The calf continuously tried to position itself in sternal recumbency. Suckling reflex was absent and the calf was died after 1 hour.

Correspondence

B Priyanka

PVC, Wanaparthi, Jangaon,
Dept. of Animal Husbandry,
Telangana, India



Fig 1: Ichthyosis foetalis in buffalo calf

This calf was born of a normal buffaloe and found with fissures and thickened, scaly, cutaneous plates covering over 95% of its body and it has small malformed ears, eyes and abnormal nose. Ichthyosis foetalis is generally referred to as an autosomal recessively inherited malformation (Tuff and Gleditsch, 1949) [8]. The most extreme and fatal form of ichthyosis has already been reported in the Norwegian Red Poll, Friesian, Brown Swiss and Chianina breeds (Stöber, 2002; Molteni *et al.*, 2006) [6, 3]. The phenotype of bovine ichthyosis fetalis most closely resembles human harlequin ichthyosis (Chittick *et al.*, 2002) [1]. However, the hereditary forms of ichthyosis in man and animals are incurable diseases. In animal forms of ichthyosis, euthanasia remains the only acceptable option because of economical and ethical aspects. However, a well thought-out breeding program can restrict and avoid the spread and prevalence of the genetic disorder by excluding proven carriers, both males and females, from breeding.

References

1. Chittick EJ, Olivry T, Dalldorf F, Wright J, Dale BA, Wolfe BA. Harlequin ichthyosis in two Greater kudu (*Tragelaphus strepsiceros*). *Veterinary Pathology*. 2002; 39:751-756.
2. Ginn PE, Mensett JEKL, Rukich PM. Skin and appendages. In: Jubb, Kennedy and Palmer's Pathology of Domestic Animals: 3-Volume Set (Vol. 1). 5th ed. M. Grant Maxie (ed). Saunders Ltd, 2007, 556-780.
3. Molteni L, Dardano S, Parma P, Polli M, De Giovanni AM, Sironi G, Longeri M. Ichthyosis in Chianina cattle. *The Veterinary Record*. 2006; 158:412-414.
4. Roberts SJ. *Veterinary Obstetrics and Genital Diseases (Theriogenology)*. 2nd Edn. Indian Print CBS Publishers, New Delhi, India, 2004.
5. Scott WD. Congenital and Hereditary Skin diseases. In: Color Atlas of Farm Animal Dermatology. WD Scott (ed) Ames, Iowa: Blackwell, 2007, 60-68.
6. Stöber M. Erbliche und andersbedingte Mißbildungen der Haut. In: Dirksen G., Gründer H.-D., Stöber M. (editors). *Innere Medizin und Chirurgie des Rindes*. Vierte vollständig neubearbeitete Auflage. Blackwell Verlag, Berlin, 2002, 35-36.
7. Testoni S, Zappulli V, Gentile A. Ichthyosis in two Chianina calves. *Dtsch Tierarztl Wochenschr*. 2006; 113:351-354.
8. Tuff P, Gleditsch LA. Ichthyosis congenita hos kalver. *Nord Vet-Med*. 1949; 1:619-27.