

Surgical Management of Omphalocele in a Neonatal buffalo calf

R.M. Puri¹ and B.N. Telange

Veterinary Dispensary (Grade 1)
Department of Animal Husbandry
Sonkhed
Tq. Loha
Dist. Nanded - 431708 (Maharashtra)

Abstract

Congenital abdominal intestinal evisceration (omphalocele) through the defects in umbilicus and its surgical management in a newborn buffalo calf is reported.

Keywords: Buffalo; calf; congenital; omphalocele

Introduction

Congenital defects, abnormalities of structure or function present at birth, may be caused by genetic or environmental factors or a combination of both. In many cases, the causes are unknown. Developmental defects may be lethal, semi lethal or compatible with life-causing aesthetic defects or having no effects on the animal. The present communication reports an incidence of abdominal intestinal evisceration (omphalocele) in a neonatal calf.

History and Observations

A newly born female buffalo calf was brought with history of abdominal intestinal viscera through the umbilical opening since birth. On clinical examination, the abdominal viscera contained an intestinal loop and was surrounded by partial peritoneum (Fig. 1). Clinical parameters revealed pulse 130/minute, respiration 62/ minute and temperature 102.1°F.

Treatment and Discussion

Protruded visceral mass was washed with sterile normal saline solution. After preparation of the site, Xylocaine hydrochloride (2%) was infiltrated around the umbilical opening. For proper repositioning of prolapsed abdominal viscera into abdominal cavity, the opening was enlarged craniocaudally by giving an incision. The peritoneum, abdominal muscle and skin were sutured with standard procedures (Fig. 2).

Post-operatively, the animal was administered Intacef Tazo^a (Ceftriaxone + Tazobactam) 562 mg @ 15 mg/ kg b. wt. IM route and Non-steroidal Anti-inflammatory drug (NSAID) Inj. Melonex^a (Meloxicam) 2 ml by IM route was for consecutively five days. Topical application of Himax^b on the suture line was advised for seven days. The suture was removed twelveth days post-operatively and the buffalo calf recovered uneventfully. Various Veterinarians had also reported congenital abdominal prolapsed through the umbilical opening in a newborn calf (Sharma, 2003; Jana and Jana, 2009).



Fig. 1: Intestinal loop and surrounded by partial peritoneum



Fig. 2: Peritoneum, abdominal muscle and skin were sutured with standard procedures

1. Livestock Development Officer Veterinary and
Corresponding author. E-mail: drmpuri@gmail.com
a - Brand of Intas Animal Health, Ahmedabad
b - Brand of Indian Herbs Ltd., Saharanpur

Results and Discussion

The calf recovered uneventfully with complete healing of the surgical wound. The causes of isolated omphalocele are not known and while it is a developmental defect, it is not necessarily a heritable anomaly (Baird, 1993) although genetic trait (Koetal, 1990).

References

Baird, A.N. (1993). Omphalocele in two calves. *J.A.V.M.A.* **202**: 1481-82.

Jana, D. and Jana, M. (2009). Abdominal evisceration in new born calf and its successful surgical management. *Intas Polivet* **10**: 221-22.

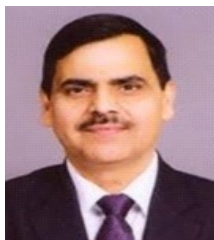
Ko, J.C.H., Evans, L.E. and Haynes, J.S. (1990). Multiple congenital defects in a female calf - A case report. *Theriogenology* **34**: 181-87.

Sharma, A. (2003). Passage of abdominal viscera through persistent umbilical opening in a new born calf and its surgical correction. *Intas Polivet* **4**: 335-36.

Received on: 31.03.2021

Accepted on: 29.04.2021

Dr. Ashok Kumar Tiwari takes over as Director, ICAR-CARI



Dr. Ashok Kumar Tiwari joined as Director, ICAR-Central Avian Research Institute (CARI), Izatnagar in January, 2021. Dr. Tiwari is a Veterinary Virologist with more than 29 years of experience in teaching and research in area of conventional and molecular virology.

Dr. Tiwari was born on 20th September, 1963 in Faizabad district of Uttar Pradesh. He graduated in 1984 from GBPUAT, Pantnagar and joined IVRI for Masters (1987) and Doctorate (1990) in Veterinary Virology. Before joining as Director, Dr. A.K. Tiwari was the Head, Division of Animal Biological Standardization and Coordinator and Nodal Officer of National Animal Disease Control Programme (NADCP), Indian Veterinary Research Institute (IVRI), Izatnagar and contributed in maintaining quality of Veterinary vaccines produced/ imported in the country. He has been instrumental in the development of three different vaccines, four diagnostic kits, several advanced molecular diagnostics for accurate and timely diagnosis of different animal diseases, one cell line, gene therapeutics for treatment of animal cancer, 10 mobile apps, 17 educational videos, applied for three patents (one granted), four designs for addressing reproductive issues and five National standards for quality control of vaccines.

Dr. Tiwari has guided Masters and Doctorate students in Animal biotechnology and was involved in organizing several short-term training courses. He has been conferred with Dr. S. Vancheesar Iyer Gold Medal (1996), Prof. P.R. Neelakhanthan Award (2000), IVRI Best Teacher Award (2002), Commonwealth Academic Staff Fellowship (2007) and Bharat Ratna Dr. C. Subramaniam Award' 2012 for Outstanding teacher by ICAR.

It is heartening to note that poultry sector in India has witnessed a rapid growth over the last four decades and emerged as the 3rd largest egg (67 billion) and 5th largest poultry meat (3.2 million tons) producer globally. ICAR-CARI since its inception on 2nd November, 1979 along with its Regional Centre at Bhubaneswar, has been playing a pivotal role by providing R & D and technological support for augmenting diversified poultry production in the country. Intas Polivet and Indian Veterinary community wishes, Dr. A.K. Tiwari good luck for his new assignment and hopes that his effort can give more strength to CARI as a referral centre for all aspects of poultry value-chain and tackle the challenges for sustained growth of Indian poultry sector.