

Abdominal Hernia in A Mesopotamia Buffalo calf**M. A. Alkhalani.****Ph.D., Department of surgery and Obstetric, College of Veterinary Medicine, AL Fallujah University.****Abstract**

A two months old male Buffalo calf with a large abdominal swelling was brought to Baghdad Veterinary Hospital. From history, one month ago small swelling appeared at the lateral abdominal region and it was enlarged gradually with no effect on the appetite. On palpation it revealed irreducible swelling about volley ball in size. The hernial ring was at the upper flank region about four fingers in size and the small intestine was fall down to the lower abdominal region as a bocket between the abdominal wall and the skin. The case was successfully treated surgically by open herniorrhaphy.

**الفتق البطني في عجل جاموس بلاد ما بين النهرين
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الخلاصة**

ورد الى المستشفى البيطري في بغداد عجل جاموس ذكر بعمر شهرين يعاني من ورم في منطقة البطن بحجم كرة الطائرة. بدأت الحالة بورم صغير في منطقة البطن وازداد الحجم بمرور الوقت ولم يؤثر على رضاعة الحيوان ولا على خروج الحيوان. عند اجراء الفحص السريري لم يتم تحسس حلقة الفتق لبعدها عن محتويات الكيس ولسمك الجلد في المنطقة بسبب الالتصاقات. عند اجراء العملية الجراحية تبين ان حلقة الفتق كانت في الجزء العلوي من منطقة الخاصرة وبعيدة عن محتويات الفتق ويعرض اربعة اصابع تقريبا وقد خرج جزء من الامعاء الدقيقة وتدلى تحت الجلد الى اسفل منطقة البطن على شكل جيب بين الجلد وجدار البطن. عولجت الحالة جراحيا بطريقة خياطة الفتق وبنجاح.

الكلمات المفتاحية : الفتق البطني ، عجل الجاموس ، بلاد ما بين النهرين

Keywords: Abdominal Hernia , Mesopotamia, Buffalo calf

Introduction

Hernia is the exit of an organ or tissue through an abnormal opening. This opening may occur as a tearing in the abdominal wall or it may be natural as in the inguinal canal or like in femoral canal (Das *et al.*, 2012)

A hernia is a common defect in calves. The cause of hernia may be accidental or an opening, that does not closed naturally (Rings, 1995, Virtala *et.al*, 1996), weakening of the abdominal musculature (Arthur, 1989). Accidental abdominal hernia is occurring as a result of butting by another animal or external trauma. In ruminants and horses abdominal hernia is commonly acquired condition (Venugopalan, 1997). Fat is usually the contents of the umbilical hernia, in larger

described in different methods, ligation of the sac, clamps, by suturing the sac and surgical operation to correct the umbilical hernia, inspite of the most common treatment is open herniorrhaphy (O'Connor, 1980). Open herniorrhaphy has many demerits like bacterial infection which may cause hernia recurrence, but it is common in use. It is not clear why closed herniorrhaphy can minimize the postoperative complications as, but as in an irreducible umbilical hernia open herniorrhaphy is only the choice (Bibek *et.al*, 2009).

Case history and observations:

A two months male old buffalo calf was brought to Baghdad Veterinary Hospital; it was suffered from a big bulge at the right lower flank. Since about one month a small bulge was appeared at flank region which began to grow gradually until reached the current size. The owner had no idea about any accidents like kicking; it might be congenital muscle weakness. By clinical examination the hernial ring was not determined because of the thickness of the overlying skin on the sac and finally we found the ring was at upper flank region far than the sac. Animal appetite was normal and did not suffer from problems in defecation. Temperature and respiration was at normal rate and his activity too. When the calf examined using a stethoscope the voice of the intestines heard in the hernial sac. Differential diagnosis was done by needle aspiration, no pus no fluid appeared.



Fig. 3: Horizontal mattress skin suturing

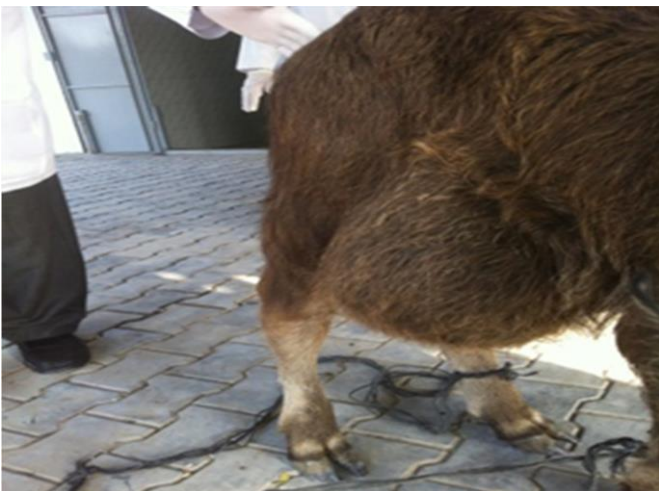


Fig. 1: The hernial sac.



Fig. 4: Hernial sac at lateral abdominal region.



Fig.2: Repositioning the intestine to the

Treatment

The surgical operation site was prepared with routine aseptic technique, Xylocaine 2% (Xylonest, Astra Zeneca GmbH, Germany) was used for local anesthesia. The calf restrained on left lateral recumbence. A horizontal skin incision was made at the upper flank region as

the hernial ring was exposed. Blunt and sharp dissection of the adhesions between the peritoneum and viscera and between intestine and subcutaneous tissue were freed, the intestine was repositioned gently into abdominal cavity through the ring, the hernial ring was refreshed and closed by interrupted horizontal mattress suturing with silk No.2 (Jamy Corporation, India). The subcutaneous tissue then was sutured by Cut Gut, USP. 2 (Chromic Gut, Dynek Pty Ltd, Australia) and the skin sutured by USP. 2 silk (Jamy Corporation, India) by horizontal mattress. Penicillin-streptomycin at a dose of 30,000 IU/kg for the penicillin and 10 mg/kg streptomycin for 5 days was injected intramuscularly. Ten days later the skin sutures were removed, the animal recovered and appears in a good condition

Results and discussion

Herniorrhaphy had been done successfully without important complications. In this case there were multiple adhesions and the peritoneum was opened. Sagar (2010) said that adhesion formation can be a major complication of any abdominal hernias. That need fine blunt dissection to prevent bowel injury and repositioned them to abdominal cavity. Herniorrhaphy was performed in present case with horizontal mattress pattern, non-absorbable suture (silk, USP 2). There are lots of treatment options for ventral abdominal hernia that depend on the size of the hernial opening, by using absorbable or non-absorbable sutures with horizontal mattress pattern the surgical herniorrhaphy could be done (Al-Sobayil and Ahmed, 2007, Pugh, 2002), and it is useful in case of large hernia opening (Abdin-Bey and Ramadan, 2001). Sankar et al. (2010) performed herniorrhaphy in a cow by overlapping suture using No. 3 silk in horizontal mattress pattern.

We thought that horn thrust in present case was the cause of ventral hernia; the

swollen began at the age of one month and continued to grow until reach its present size. This is consistent what Krishnamurthy (1995) said that any trauma in cattle caused by kick, horn thrust and violent contact with blunt objects or car accidents or an abscess of the abdominal cavity may be cause weakening of the abdominal muscles.

The hernia ring in our case was about four fingers in upper flank region; the sac was large because of descent of bowel and presence between the skin and abdominal wall. That confirms our belief that the cause of hernia was the horn thrust, depends on the size of the herniation, the hernial ring in abdominal wall near the midline varies in diameter and nature of hernial contents (Krishnamurthy, 1995).

Postoperative recovery was good and no complications occurred due to absence of sever adhesions and no intestinal damage seen before and post operation. Sagar et al. (2010) noticed successful recovery of ventral hernia cases may depends upon early presentation to clinician and its reducible nature.

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