



CASE REPORT

A Case Report of Type-III *Atresia ani* with Testicular Mass on Point of Anus in Sahiwal Cattle Calf

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ABSTRACT

A three days old hermaphrodite Sahiwal cattle calf was presented at Veterinary Teaching Hospital of Department of Clinical Sciences, University of Veterinary and Animal Sciences, Sub-campus Jhang, Pakistan. Clinical examination revealed the absence of anal opening with a pinkish mass present on point of anus. Rudimentary vulvular lips were also observed. Animal was straining to defecate but was not able to pass the faeces. On the basis of history and clinical examination it was diagnosed as a case of atresia ani and was treated surgically to make the surgical openings of anus. The prognosis of case was very poor and resulted in complications during abdominal surgery and was assumed as Type III *Atresia ani*. Thus affected calf was euthanized humanely.

INTRODUCTION

Atresia of various segments of intestinal tract of calves have been reported (Van Der Gass et al., 1980). These segmental disorders may be obvious and diagnosed rapidly after birth or some time remains inapparent until clinical signs appear few days after birth (Anderson et al., 2009). Four types of *Atresia ani* based on anatomical obstruction of anus has been reported by different workers (Wamaitha et al., 2015; Van Der Gass et al., 1980). A case of atresia ani with diphallus and separate scrota has also been reported in calf (Ghanem et al., 2004) Genetic and other non-heritable factors are responsible as cause of atresia in different parts of intestinal tract in ruminants associated with other congenital deformities like lack of tail and urogenital defects (Saibaba et al., 2016) Surgical treatment is offered to establish a passage through intestinal, colonic and anal tract for bowl evacuation. This report presents an unusual case of calf having type III atresia ani with a round piece of mass on a point of anus which was diagnosed as testicular mass after histopathological examination.

Case history

A three days old Sahiwal breed calf was presented at Veterinary Teaching Hospital of Department of Clinical

Sciences, University of Veterinary and Animal Sciences, Lahore, sub campus Jhang, Pakistan with main complaint of lacking normal anal opening, abdominal pain and tenesmus. Clinical examination revealed normal respiratory rate (31/min) and heart rate (110/min). There was no anal scar but the anal region was having small fleshy protruded mass at the point of the anus (Fig. 1). Animal was also having rudimentary vulvular lips on perineal region. After thorough clinical examination, it was diagnosed as a case of atresia ani and was decided for surgical intervention to make the surgical opening of anus.

Treatment

The calf was restrained on left-lateral recumbency on the surgical table. After preoperative preparations, 2% lignocaine was infiltrated in a circular fashion around the protruded mass on anal region. Circular incision was made through the skin and subcutaneous tissue around the edges of protruded mass (Fig. 1). Careful blunt dissection was made to explore the pelvic cavity. After surgical dissection of protruded mass of anal region, no rectal pouch was found. The dissected mass was subjected to histopathological examination that confirmed the presence testicular parenchyma. After excision, no blind anal rectal pouch was explored even by passing the flexible catheter. So it was assumed as a

case of type III atresia ani. Keeping in view the poor prognosis of cases of type III atresia ani and certain obvious complications resulted during abdominal surgery, it was advised to euthanize the cattle calf.



Fig. 1: Calf with atresia ani showing a mass at point of anus.

DISCUSSION

In calves, colonic atresia is usually associated with atresia ani and other abnormalities like lack of tail, cryptorchidism, agenesis of kidneys and umbilical hernia (Syed and Shanks, 1992). This condition has also been found along with diphallus and separate scrotum in calves (Ghanem et al., 2004). Similar case of atresia coli had also been reported in an Arabian foal (Azizi et al., 2017). In the present case study, calf was having atresia coli associated with a very uncommon abnormality of testicular mass on point of anus. Palpation of amniotic vesicles for pregnancy diagnosis during 36 to 42nd day of gestation period may lead to development of atresia coli due to interruption of mesenteric blood supply during manipulation (Brenner and Orgad, 2003). This finding is further supported by this study, as the dam of the calf was rectally palpated during 40th day of gestation period to confirm pregnancy. Contrast radiography along with abdominal ultrasonography have been used as a very effective tool to locate the site of colonic and rectal imperforations in calf (Abouelnasr et al., 2012). These applications could not be used in this case due to lack of facility.

The history from the owners and certain clinical signs like abdominal distention, anorexia, depression and failure of meconium to pass suggested the GIT obstruction (Azizi et al., 2010) and that's why the time for diagnosis and surgical rectification always vary from 1-8 days after birth (Durmus, 2009). In the present case, due to obvious gross obstruction of anus the imperforation was diagnosed very early after birth. The correction of anal, rectal and colonic imperforations have been carried out by using different surgical

approaches, but the surgical correction of atresia coli has over all low success rate (Sureshkumar et al., 2011). Keeping in view the poor prognosis of this case, the owner was advised to euthanize the calf. Atresia ani is a common hereditary problem in small as well as large ruminants and different cases has been reported in Pakistan (Magsi et al., 2016; Muhammad et al., 2015; Shakoor et al., 2012) but the present case has its own novelty that it was having testicular mass on the point of anus.

Authors' contributions

All authors contributed equally in this manuscript.

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