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Research Article

SURGICAL CORRECTION OF TYPE II ATRESIA ANI WITH RECTOVAGINAL FISTULA IN A KITTEN

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Abstract

Atresia ani is a congenital defect of the anorectum and delayed surgical correction will lead to death. Atresia ani with rectovaginal fistula is a congenital condition that affects the anal opening rectum and vagina. The presenting physical abnormalities include depression, dehydration, anal atresia and a discharge of watery faeces from the vaginal opening. Surgical correction was performed in a 30 day old female kitten with atresia ani and post operatively kitten had an uneventful recovery.

Keywords: Atresia ani, Rectovaginal fistula, Kitten.

INTRODUCTION

Atresia ani otherwise known as imperforate anus occurs due to failure of breakdown of cloacal membrane and fusion of cloaca with proctoderm in embryonic state. It is more frequently encountered in calves and pigs (Noden and Lahuta, 1985). But very few reports of feline congenital abnormalities of the lower gastro intestinal tract are available because many newborn animals with deformities are euthanized (Suess *et al.,* 1982). Congenital abnormalities of the anus and/or rectum with associated urogenital malformations originate fromabnormal embryonic development within the cloacal region. The cloaca is a common opening for the gastrointestinal, urinary, and reproductive tracts (Suess *et al.,* 1982). Rectovaginal fistulae are correlated with a failure of the urorectal fold to divide the embryonic cloaca properly. The sinovaginal bulbs may incorporate a persistent cloacal opening and, during their migration, may carry this rectal opening to the vestibular region or to any level of the vagina. The fistula connects the dorsal wall of the vagina with the ventral portion of the terminal rectum, which often ends as a blind pouch (Suess *et al.,* 1982). The present report describes a case of type II atresia ani along with rectovaginal fistula and its successful surgical correction in a 30 day old kitten.

Case History

A 30 day old, female kitten weighing 250g was presented to the Department of Veterinary Surgery & Radiology, College of Veterinary and Animal Sciences, Mannuthy, with a complaint of absence of anal opening and passing little quantity of faeces along with urine. On physical examination, kitten was dull and depressed with distended abdomen. Clinical examination revealed absence of anal opening, a bulge at the anal region on pressing the abdomen, severe pain on abdominal palpation and greenish yellow colour faeces was evident at the vaginal opening. The present case was diagnosed as atresia ani with rectovaginal fistula andsurgical correction was performed.

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Treatment

Kitten was prepared for aseptic surgery and general anaesthesia was induced and maintained with ketamine hydrochloride @20mg/kg b wt IM and diazepam @0.5mg/kg b wt IM. Animal was positioned in sternal recumbency. A cruciate incision was made over the bulge of the anus. The blind rectal sac was carefully located without any injury to the anal sacs and anal sphincter. The tip of blind rectal sac was resected, the rectal mucosa was brought caudally and fixed to the skin with simple interrupted sutures using fine nylon. Impacted fecal material was removed manually after which the kitten started to defecate normally. Post operatively the kitten was administered with Syr.Cephalexin @20mg/kg b wt PO, BID for 5 days and Syr.Meloxicam @ 0.2mg/kg b wt PO, OD for 3 days. The kitten recovered uneventfully. Sutures were removed on 10th post-operative day.

DISCUSSION

Congenital deformities of the anorectum are rarely encountered in small animals and developed the reason for it is abnormal embryonic development of the cloacal region (Salari *et al.,* 2010) Various types of atresia ani are mentioned below (Matthiesen *et al.,* 1993).

Type I	Congenital stenosis of a patent anus
Type II	Persistence of a complete anal membrane alone or a combination of an anal membrane with the rectum ending as a blind pouch cranial to the membrane
Type III	Presence of an imperforate anus with the rectum terminating further cranially.
Type IV	Normal ending of the terminal rectum and anus while the cranial rectum terminates as a blind pouch within the pelvis

Surgical correction is the only treatment of choice for atresia ani and the prognosis is guarded to poor for the complete return of normal rectal function for any type of atresia ani (Ettinger and Feldman, 2005). Most common post-operative complications are tenesmus, fecal incontinence, wound dehiscence, stricture of anoplasty, colonic atony or mega colon and rectal prolapse as reported in earlier studies (Suess *et al.,* 1982 and Rahal *et al.,* 2007). Pre operatively, the kitten was active even after 30 days of presentation with atresia ani may

be due to presence of fistula, similar findings were also reported by Vallefuoco *et al,* in a 3 months old kitten (Vallefuoco *et al.,* 2013).

Summary

The present report describes about successful surgical treatment of type II atresia ani with rectovaginal fistula in a kitten

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