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Short Communication

Successful management of cervico-vaginal and rectal prolapse in swine: A case report

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Prolapse literally means "to fall out of place", originated from the latin word *prolabi* meaning "to fall out." In reproduction term prolapse is a condition where organs such as the cervix, vagina & uterus fall down or slip out of place and protrudes out through natural opening *i.e*, vulva (Cynthia and Scott, 2005).Typically, prolapse of the vagina and cervix (CVP) is a disorder of ruminants normally in late gestation (Arthur *et al.,* 2001). Occasionally it is seen after parturition and rarely does it occur unconnected with pregnancy or parturition. It very less frequently occurs in swine. It can be recognised by the protrusion of varying parts of the vaginal wall and sometimes the cervix through the vulva so that the vaginal mucosa is exposed. Compared to other farms species, swine appears to be particularly vulnerable to prolapse of the rectal tissue through the anus, which can be seen in any age group from as early as 1-2 days old upto adults. The basic underlying cause of the prolapse is an increase in abdominal pressure, forcing a breakdown in the weak muscular support mechanism of the pelvis, which normally retains the rectum in place.

Case history and clinical examination

A primiparous female sow, aged four years, approximately of one and half months gestation was referred to the Teaching Veterinary Clinical Complex (TVCC) of College of Veterinary & Animal Sciences, Palampur with the history of cervico-vaginal prolapse since last five days and rectum prolapsed from last two days. Animal was earlier treated at local veterinary dispensary but no positive results were obtained. Clinical examination revealed edematous, indurated and lacerated cervix as well as vagina which were hanging out of vulva. Similarly more friable and lacerated prolapsed mass was hanging out of rectum as well. The animal was off fed and was straining continuously for defecation and urination.

Treatment

Based on history, clinical findings and physical examination, the condition was diagnosed as recurrent cervico-vaginal and rectal prolapse. Initial futile attempts were made to reduce the edema using hydrotherapy with mild antiseptic potassium permanganate solution, but attempt was not successful. So it was decided to undertake rectal re-sectioning procedure under epidural analgesia followed by Buhner's suturing for the treatment of cervico-vaginal and rectal prolapse. In this case, the mucosa was dissected free from the submucosa, and the cut edges are sutured back together leaving the underlying submucosa and blood supply intact. Surgery was performed after administration of epidural anesthesia. (2% Lignocaine HCl). Animal was treated with Inj.Melonex® @ 0.4mg/kg b.wti/m o.d x 5 days, Inj. Intacef Tazo® @ 10 mg/kg b.wti/m bid x 5 days and Inj. Duraprogen 500 mg i/m on weekly intervals. Owner was advised to segregate the female and give light diet alongwith liquid paraffin supplementation @ 25ml per os for a week. Animal showed uneventful recovery.

Prolapse is an eversion of any internal organ through natural opening. Prolapse of the vagina and cervix commonly occurs in the last third of pregnancy including the immediate pre-farrowing period. In the early stages the protruding tissues appear between the lips of the vulva and return to their normal position when the sow stands. With advancing pregnancy the prolapse may remain to the exterior and as soon as this occurs the animal should be removed from it's existing environment and loose-housed. The tissues become swollen with time. Exposed organ is vulnerable to damage and possibly infection (Jackson, 2004). It is a response to increased abdominal pressure together with a relaxation of the internal structures that support the neck of the womb. It is more common in older sows and those housed on slippery floors. High levels of starchy feed intake produce excess fermentation and gas and an increase in abdominal pressure predisposes to cervico vaginal prolapse. For replacement of prolapsed vagina, an epidural anesthesia is administered. The organ is washed, rinsed and the bladder is emptied if necessary. The vagina is well lubricated and replaced. Buhner suturing technique, commonly used procedure in bovines can be used for retention of prolapsed cervix and vagina (Robert, 2004; Robert and Walter, 2007).

Rectal prolapse is a common occurrence in cattle and small ruminants. Rectal prolapse is most common gastrointestinal tract problem in pigs due to diarrhea or weakness of the rectal support tissues within the pelvis and is routinely identified on farms and at slaughterhouses (Cynthia and Scott, 2005). Prolapse of the rectal mucosa occurs following straining, which may be associated with tenesmus (as occurs with coccidiosis, colitis, and other conditions), dysuria (as a complication of cystitis, urolithiasis, dystocia, neoplasia, and other conditions), spinal abscess, and other causes), chronic coughing (as a complication of bovine respiratory disease), or

Fig. 1. Rectal & Cervico-Vaginal Prolapse

Fig. 2. Resected rectum

Fig. 3. Buhner's sutures applied in submucosal vulvar area

genetic predisposition (Fubini and Ducharme, 2004). If not reduced quickly, prolapse in pigs become necrotic and infected, and risk being cannibalized by other pen mates. If the latter happens it normally results in death of the animal by septicemia, shock or faecal peritonitis.

Long term consequences of rectum prolapse leads to either no effect – particularly if the prolapse returns without damage, slow dying off of the prolapsed material over several weeks with the chances of secondary infection arising from rotting tissue or formation of rectal stricture. Rectal stricture is a common condition in growing pigs in which scar tissue forms a ring inside the terminal rectum which slowly closes, obstructing the bowel and preventing defecation. The result is that faecal material accumulates in the colon, caecum and rectum (large intestine) leading to distension of the abdomen. Body condition is lost and the pig ultimately becomes gaunt and hairy. Occasionally the skin may take on a yellow tint as bile, which would normally be excreted, is reabsorbed. Death is a natural end point but humane destruction will be required before this. Affected pigs are not suitable for slaughter for human consumption.

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