

Fetal Maceration in Bovines

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Fetal maceration is the disintegration of a fetus that has died after formation of the fetal bones (beyond 4 months of pregnancy in cattle and buffalo) and has failed to abort, although the cervix is open. Fetal maceration follows incomplete abortion and the later may be due to a partially dilated cervix, uterine inertia, the abnormal presentation of a fairly dry fetus and intrauterine infections, which subsequently leads to retention of a dead fetus in uterus.

Incidence

Among all the reproductive disorders reported in buffaloes, the prevalence of maceration is 0.01%

Etiology

Retained macerated fetus is mainly due to entry of autolytic bacteria in uterus and loss of corpus luteum at any stage of gestation. Besides, it is commonly associated with infectious agents such as *Campylobacter fetus*, *Trichomonas fetus*, *Brucella* and *Leptospira* species.

Clinical presentation and diagnosis

The cow may display only vague signs of intermittent straining, accompanied by a foul, grayish red vaginal discharge which may contain small bones. Animal may be mildly febrile, anorexic and depressed. Fever and anorexia may develop due to infection. The diagnosis is readily made by the history of foul smelling vaginal discharge, rectal palpation (thick and heavy uterine wall, fetal bones floating in pus and palpation of crepitation sound in the uterus) and ultrasonography (Uterine wall were thickened and bone fragments are seen as dense echogenic are as shadowing the tissue below. Surrounding and between the bones purulent fluid is present with typical appearance of a non-echogenic background containing many small echogenic particles). In most of the chronic macerated cases the disintegration of skull from the fetus occurs and this disintegrated skull lodges in non-pregnant horn towards ovarian end very frequently. Therefore, disintegration of fetal skeleton is not a common

feature of mummified fetus that helps in ultrasonographic differentiation of macerated fetus from mummified fetus in these types of cases.

Treatment

The prognosis for future fertility of the cow is very poor, because of endometrial damage and, therefore, culling of animal is recommended. However, if the individual value of the animal warrants treatment then, the pieces of bone lodged in the vagina or cervix are removed manually if the cervix is dilated by per vaginum. Sufficient lubrication and gentle removal of the bones is necessary. A large quantity of normal saline can be infused in the uterus for expulsion of the pus and bone pieces 24 hours later. Supportive therapy with antibiotics, fluid replacement and corticosteroids is indicated in severe cases. The luteolytic dose of prostaglandins can be given to induce estrus and in attempt to evacuate the contents of the uterus, to lyse the partially lysed CL and/or increase the uterine contractions. Laparohysterotomy to remove the macerated fetus is potentially dangerous and has been considered as a last resort, however, it has been used to remove macerated feus with uneventful recovery.