Removal of an intrauterine mineralized caruncle from a Holstein cow by colpotomy and hysterotomy

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During routine prebreeding transrectal examination at 50 days postpartum a high producing, second lactation cow was found to have a firm, movable structure in the base of the left uterine horn. Further examination by ultrasonography revealed a hyperechoic mass not associated with the endometrium. This cow had delivered a live heifer calf with no obstetrical or postpartum reproductive complications. She was considered valuable based on her mature equivalent (ME) 305 (35620 lbs). It was decided to remove the mass by colpotomy and hysterotomy. Surgery was performed 57 days postpartum in a chute. An epidural injection consist of 2% lidocaine (120mg) with xylazine (24mg; 100 mg/mL) was administered. The cow’s tail was restrained to the side and her perineal and perivulvar area was prepared for surgery. The cranial vagina was anesthetized using 2% lidocaine on sterile gauze held in contact with the mucosa for a few minutes. A Kimberling-Rupp spay instrument was used to make a small incision in the left vaginal fornix, at 10 o’clock position. The surgeon’s hand was used to enlarge the incision. The uterus was retracted into the vagina and held by an assistant. A 5 cm incision was made along the greater curvature of the left horn about 4 cm from the tip of the uterine horn. The mass was removed and the uterus was closed using 2-0 polydioxanone in a Utrecht pattern. The serosa of the uterus was lavaged with sterile water and replaced in the peritoneum. The cow was given 750 mg of flunixin meglumine IV (1.1mg/kg) and 750 mg ceftiofur hydrochloride IM (1.1 mg/kg) for three days. The mass was a yellowish-brown, hard substance measuring 4.5 by 5 by 1.5 cm. It was submitted for histologic identification. Despite considerable necrosis and mineralization, there was sufficient cellular detail to confirm histologically that the removed tissue was indeed a caruncle. The cow was examined by transrectal palpation one and two weeks after surgery in which minor adhesions were palpated on the ventral aspect of the serosal uterine wall. The cow was seen in estrus two weeks later and re-examined with mild thickening of the left uterine wall but no obstructive adhesions palpable, and was artificially inseminated at that time. Mineralized caruncles are thought to occur postpartum when the blood supply to the caruncle is lost and the whole caruncle is shed intact rather than in smaller pieces. Detachment of the entire superficial layer of the caruncle is a normal phenomenon, but occasionally the detached cap is too large and inspissated and does not get passed through the cervix or broken down into normal lochia. These caruncles may further inspissate and one or two may be palpated several weeks later as firm masses. It should be noted that this surgical technique has been described for removal of mummified fetuses but not for removal of mineralized caruncles and could be used to remove pathological uterine contents.

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