A 1.5-year old Shorthorn heifer was presented for evaluation of a persistent vaginal discharge and failure to conceive. The heifer had been serviced twice by a bull 35 days prior to presentation and developed intermittent vaginitis and vulvar discharge. She was treated with ceftiofur and estrus synchronization was attempted, but the controlled drug release (CIDR) insert could not pass completely into the cranial vagina. During presentation, all physical parameters were within normal limits except for presence of a yellow/white vulvar discharge. Palpation and ultrasonography per rectum revealed presence of a corpus luteum (CL) on the left ovary along with presence of anechoic fluid within the uterine horns (i.e. mucometra) and fluid with echogenic particles within the uterine body (i.e. pyometra). There was no communication between the uterine horns and body. The cervix felt small and a cystic structure was visualized at the cranial aspect. On vaginoscopy the vagina appeared normal with no adhesions or bands. A structure resembling the external os of the cervix could be visualized and mucopurulent exudate was draining from it. Uterine catheterization was attempted but the catheter could not be advanced further than the external os of the cervix. The lack of communication between the uterine horns and body indicated that she had a segmental aplasia of the tubular tract, also known as White Heifer Disease. This condition is congenital and genetically inherited, as seen more often in Shorthorn breeds. In Shorthorns the disease is caused by a single, recessive, sex-linked gene linked to the gene for white color. Due to the heritability of this condition, the heifer should not be used in any reproductive capacity (e.g. oocyte donor). Although the prevalence of this condition is relatively low we, as theriogenologists, must be able to educate breeders in order to assure that undesirable traits are not passed on to offspring and perpetuated in the species.

Selected references