2024 Batch-Lecture No. 13, Dated: 19.03.2024

Pregnancy Diagnosis in Mare

EXTERNAL INDICATIONS OF PREGNANCY IN MARE:

1. The external indications of pregnancy in the mare are similar to those in the cow.
2. Following service the mare should be teased regularly by a stallion or an aggressive or testosterone primed gelding every one to two days to determine the end of estrum, and especially 21 and 42 days later to determine if conception has failed to occur.
    i. It is not unusual for the pregnant mare to exhibit some or all the symptoms of oestrum, especially the first several months of gestation,
    ii. Under certain circumstances, such as pasturing mares on legume pastures, estrum could occur in over 10 percent of pregnant mares. These symptoms usually last for only one or two days,
    iii. Other mares may show no signs of estrum after breeding and yet have failed to conceive.
    iv. Since the breeding season for most mares is short, early and accurate pregnancy diagnosis is essential in good breeding program.
3. Post -estrual bleeding as seen in cattle after estrum does not occur in the mare.
4. Diagnosis of pregnancy in the mare based on an increase in the size of the abdomen is hazardous even though most mares in advanced pregnancy show a marked increase in the size and a characteristic shape of the abdomen.
    i. The pregnant mare's abdomen after the fifth to sixth month of pregnancy is usually pear shaped with the greatest width in the ventral third.
    ii. In fat mares or mares fed large amounts of roughage the abdomen is large but round with the greatest width in the middle third.
5. The last month of pregnancy the mammary glands begin to enlarge.
    i. Distension of the teats with colostrums occurs the last 3 to 4 days of gestation and
    ii. In most mares "waxing" of the teats due to expression of colostrums occurs 4 to 48 hours before foaling, this may be absent in a few mares or in a few mares occur up to ten days before foaling.
6. Edema of the abdomen just anterior to the udder may occur in advanced pregnancy.
7. Relaxation of the pelvic ligaments late in gestation occurs but is not as evident in the mare as in the dairy cow.
8. Ballottment of the foetus in the mare in advanced pregnancy is difficult due to the thick abdominal wall and because the mare will tense the abdomen.
    i. Ballottment in the mare, however, is occasionally possible on either or both sides of the abdomen.
    ii. Foetal movements may be observed through the abdominal wall the last months of pregnancy especially after the mare has ingested cold water.
9. Prior to parturition the vulva becomes enlarged, flaccid, and edematous.
10. Use of foetal electrocardiogram for the diagnosis of pregnancy in mares from 5 to 6 months of pregnancy to term.

INTERNAL EXAMINATION FOR PREGNANCY IN THE MARE:

1. Before the internal examination for pregnancy in the mare is performed, a good clinical breeding history should be obtained if possible.
2. The foaling and breeding dates, dates of estrum, the frequency and efficiency of testing before and after breeding, and knowledge of the regularity of the mare in her estrual cycles and past foaling are helpful.
3. The rectal diagnosis of pregnancy in the mare by an experienced veterinarian is the earliest and most accurate method available.
4. In making a rectal examination in a mare the same equipment, dress, and mode of procedure is used as for examination of the cow, with the following exceptions.
    i. Restraint is more essential in mares.
    ii. Many mares may require the application of a nose twitch to control and make them stand quietly and prevent them from kicking the operator.
    iii. Some veterinarians have the mare's tail forced firmly dorsally and cranially over the sacrum as a form of restraint.
    iv. Certain excitable mares that object to restraint must be handled gently and quietly if a rectal is to be performed. Often these mares may be examined by having a foreleg elevated.
    v. In rare cases tranquillization or even sedation may be required.
    vi. If breeding hobbles are used to restrain a mare, kicking is prevented but the hocks may be raised suddenly and injure the operator if he is standing too close to the rear quarters.
    vii. A mare can be examined in stocks, around a stall partition, or by being backed up to a manger or several bales of hay or straw.
    viii. If a mare is in stocks, the rear rope or board should be low so that if the mare drops her hind quarters suddenly the examiner's arm will not be injured.
    ix. It is best to bandage the mare's tail and have it held upward and to one side by an assistant so the long tail hair does not irritate the anus and rectum at the time the arm is inserted and the tail does not become soiled.
    x. A bland, non-irritating lubricant should be used on the arm.
    xi. The rectum of the mare is drier than that of the cow and the operator's arm requires frequent liberal lubrication.
    xii. A bucket of soapy water made with a bland soap and applied to the arm with sponge.
    xiii. Liquid soap can be applied frequently to the arm and anus during the rectal examination without causing irritation of the rectum.
    xiv. The peristaltic waves in the mare are stronger than in a cow.
    xv. The hand and arm should be withdrawn from the rectum when a peristaltic contraction occurs.
    xvi. Trauma to the rectum is more easily produced than in the cow and has more serious and sometimes fatal results because of the mare's increased susceptibility to peritonitis.
    xvii. Rectal examinations should therefore be made with quiet restraint, care and gentleness.
    xviii. Withholding feed, especially roughage, for 12 to 24 hours definitely aids the examination.

5. After entering the rectum of the mare and locating the bony pelvis, it is easier to locate one of the ovaries, until with more experience the uterus can be readily found.
    i. The distinct fibrous bean-shaped ovary, 4 to 8 cm, long by 3 to 5 cm, in thickness is located about 10 to 20 cm cranial to the shaft of the ilium and about 5 to 10 cm below the lumbar vertebrae in the non pregnant mare or mare in the early pregnancy.
    ii. The operator who uses his right hand can more readily locate the left ovary of the mare and vice versa.
    iii. After locating one ovary the hand is passed down the utero-ovarian ligament to the uterus.
    iv. The uterus is cupped in the hand between the fingers and thumb and palpation of the cranial border, ventral, and dorsal portions of the non pregnant or early pregnant uterine horns, the opposite ligament and the opposite ovary is performed.
    v. The non pregnant completely involuted uterus is pliable, soft, flat and rather flaccid, 4 to 7 cm wide and 2 to 5 cm thick.
    vi. In the maiden or young mare the non pregnant uterus is suspended above the floor of the pelvis and abdomen
    vii. In older mares, especially the first month after foaling, the uterus may have dropped more ventrally and be hanging cranial to the pelvis in the abdominal cavity.
    viii. Dimock advised operators that in circumstances where the uterus was located well forward and downward in the abdominal cavity, traction on the broad ligament, or bimanual examination with the other hand in the vagina grasping and exerting traction on the cervix, could be helpful.