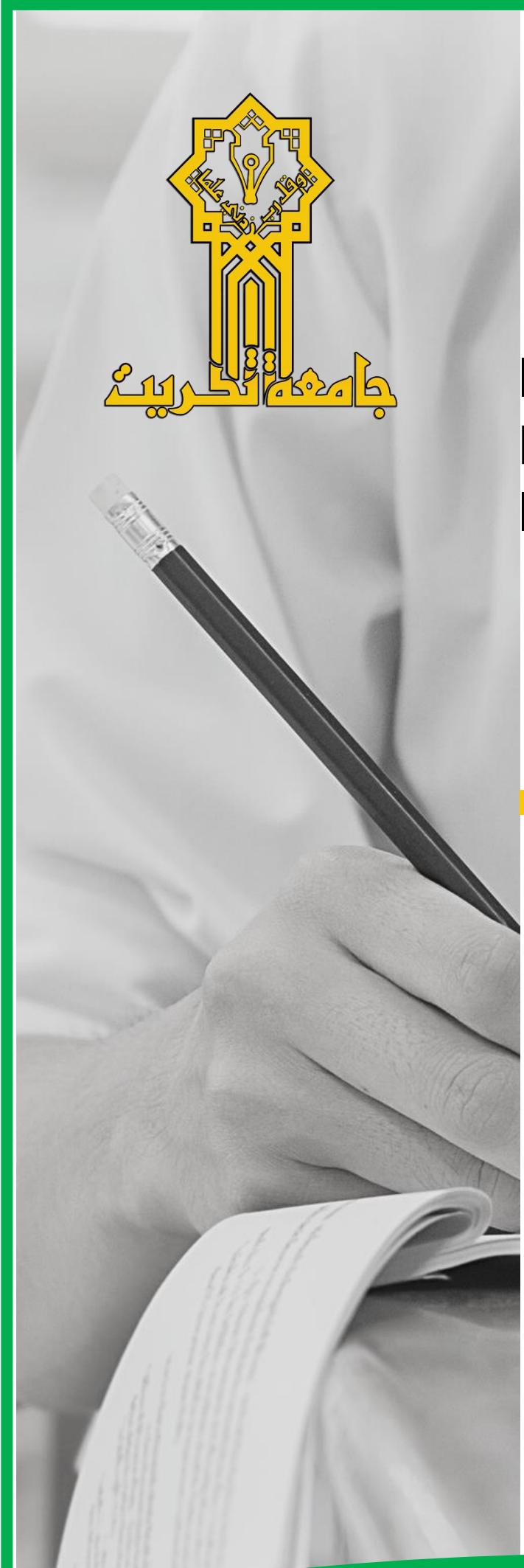

Tikrit University
College of Veterinary Medicine

INTRA UTERINE LABROSCOPIC INSEMINATION

Subject name: Reproductive techniques

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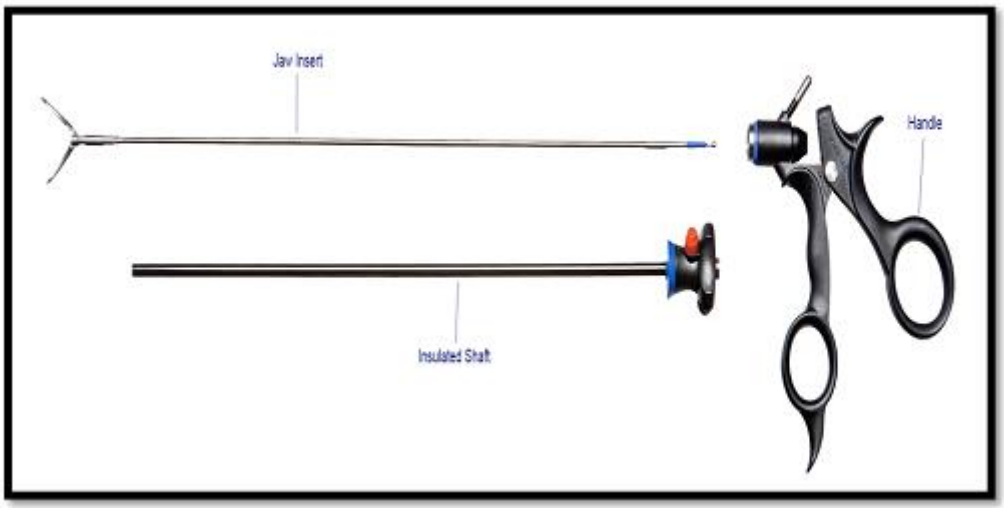
INTRA UTERINE LABROSCOPIC INSEMINATION

This technique of artificial insemination involves the synchronization of estrus and single timed insemination of the female with a minor surgical procedure. The laparoscope is a rigid fibrotic telescope, which it passes through the abdominal wall. This allows the operator to locate the internal reproductive tract and then inject the semen into the lumen of the uterine horn.



The technique makes avoids the cervix of the ewe, which is narrow and tortuous and a barrier to simpler techniques of artificial insemination. Most laparoscopic AI utilizes thawed frozen semen that has been stored in liquid nitrogen. Semen can also collect fresh from a sire on the day of AI, extended with a diluent, and then inseminated. A normal ejaculate can inseminate up to100 ewes.

Why use Artificial Insemination in Sheep?

1. Increase the pregnancy rates.

2. Breeding a much larger number of ewes to a valuable sire than is possible.

3. Use of an old or infirm sire (male) where fertility for the period of mating is unsure.

4. Prevent venereal diseases.

Most laparoscopic insemination utilizes frozen semen, for some of the following reasons:

• Obtaining frozen semen of a valuable or may be dead sire has excellent genetic characteristics sire.

• Use of a sire that is geographically distant; interstate or international.

Procedure Intrauterine Laparoscopic Insemination:

1. Controlling Estrus: for the insemination of a group of ewes or does to take place on the same day, the estrus cycle of the group must be manipulate d so that ovulation occurs at a set time.

2. Synchronization is achieved by the use of a hormone-containing intra-vaginal device (CIDR), sponge, or an injection of other hormones.

3. Food and water should be stops from the ewe for ~12 h (fasted animal).

4. Ewes should be sedated with 0.5-1.5 mg xylazine/ IM.

5. Ewe was placed in cradles that restrain and invert them, first in dorsal recumbence for preparation of the abdomen.

6. A local anesthetic may be injected s/c lidocaine at two sites (~4 cm on each side of the ventral midline and ~6 cm anterior to the udder).

7. The cradle is then raised at the posterior end so that the ewe is sloping at ~45° with the lateral abdomen presented to the operator.

8. The sedated sites allow for the entrance of two trocars and cannulas; carbon dioxide (co2) is insufflated through the first cannula to distend the abdomen.

9. The laparoscope is inserted through the near cannula, the uterine horns are

visualized, and a glass or plastic inseminating pipette or sheathed inseminating gun is inserted through the second cannula.

10. Semen is deposited into the lumen of the uterus.

11. Conception rates are similar if semen is deposited into one or both horns of the uterus.