

SOP No: AHP 64

SUBJECT: Rederivation by Hysterectomy in Rodents

POLICY: This procedure may only be performed by a competent surgeon using full aseptic technique

PRECAUTIONS: From the time the mother is euthanased to the time the pups are breathing should not exceed 11 minutes.
Surgery is carried out when the donor female is at gestation day 20.

EQUIPMENT: Full surgical apparel (autoclaved)
Weak iodine solution B.P.
0.9% sodium chloride
70% ethanol
Cork board
Bench cloth x2
Swabs and cotton buds
Heat pad
250ml glass beakers x2

INSTRUMENTS (sterilized):-

120mm sharp/sharp scissors x3
120mm curved artery forceps
120mm straight toothed forceps x3
Ophthalmic fine tip cautery pen

PROCEDURE: QUARANTINE AREA

1. Remove the donor female from her cage and euthanase by cervical dislocation. Check time.

PROCEDURE ROOM

2. Spray body with 70% ethanol. Pinch up skin and make a small cut around sternum. Holding skin firmly above and below cut, pull the skin toward the head and tail until the abdomen is completely exposed and the fur is over the head and knees.

3. Immerse the whole body in Iodine (in glass beaker) that has been warmed to 37 C. Disinfect exterior of beaker and take to procedure room for next stage. Check time.

4. Remove mouse from iodine and pin down by four feet, belly up. The iodine tightens the peritoneum so care should be taken when making incision not to damage uterus. Any break in the wall of the uterus will end the procedure due to risk of contamination.

5. Using artery forceps clamp off uterus beneath cervix.

6. Use forceps to gently raise horns away from body, snipping away connective tissue and removing by cutting above each ovary. This gives a complete sealed unit.

7. Place horns directly into beaker of 0.9% sodium chloride solution warmed to 37 C. Take the beaker directly to SPF area for collection by second technician who will disinfect exterior of beaker with 70% ethanol.

8. Notify technician of time elapsed.

SPF AREA

9. In the SPF procedure room the horns are removed from beaker and placed onto heat pad. The uterus is then carefully opened to reveal individual neonates. Stimulate the pups with a cotton bud to encourage breathing. Once breathing is established the umbilical cord can be cauterized.

10. Remove the pups from the foster mother.

11. When new pups are breathing well and free of any blood the foster mother should be induced to urinate on the pups, establishing her scent. The pups can then be placed in the cage with the foster mother.

12. At weaning the foster mother should be virus tested.

RECOMMENDATIONS:

The procedure will normally be carried out in three areas - quarantine, procedure room and SPF procedure room.

This means two staff are required to carry out the operation - one in the non SPF area and one in the SPF area.

1. Three to four females should be mated in the SPF facility and checked the following morning for vaginal plugs. The chosen females should preferably have had previous litters, possibly coming from an existing breeding program. If two females have vaginal plugs proceed to next stage.

2. The day the vaginal plugs are seen the female from the non SPF area should be mated and checked the following day for a vaginal plug. If no plug is seen the female can be checked for the next 2 days but if no plug is seen the procedure will need to be delayed. The day a plug is seen becomes Day 0.

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REVISED:

REFERENCES

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