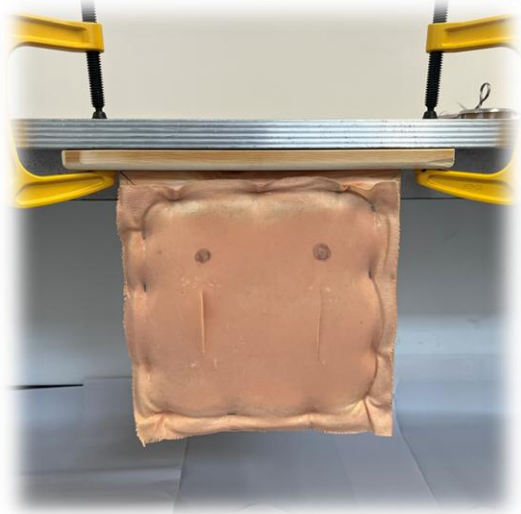
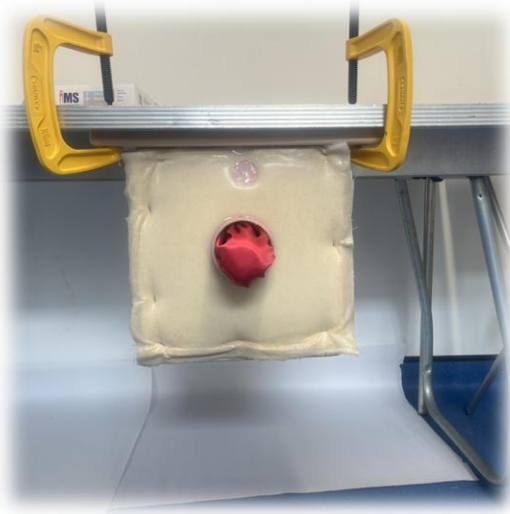


Sheep Vaginal Prolapse and Modified Bühner Suture



Disclaimer

A series of booklets has been developed by the Clinical Skills Lab team (staff, recent graduates and students) from the School of Veterinary Sciences, University of Bristol, UK.

Please note:

- Each booklet illustrates one way to perform a skill. and it is acknowledged that there are often other approaches. Before using the booklets, students should check with their university or college whether the approach illustrated is acceptable in their context or whether an alternative method should be used.
- The booklets are made available in good faith and may be subject to changes.
- In using these booklets, you must adopt safe working procedures and take your own risk assessments, checked by your university, college etc. The University of Bristol will not be liable for any loss or damage resulting from failure to adhere to such practices.

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Equipment list:

Sheep Vaginal Prolapse and
Modified Bühner Suture

Equipment for this station:

- There are two models:
 - Sheep vaginal prolapse model
 - Bühner suture model
- 5-inch half-curved cutting needle
- 4mm suture tape
- Scissors
- Needle holders

Considerations for this station:

- In a live animal the prolapse should first be cleaned with an antiseptic solution to remove faeces and debris. Do NOT attempt to clean the model vagina.
- In the live animal lubricating gel is applied to the prolapse to aid replacement. Do NOT use lubricating gel on the model.
- The suture needles are sharp and therefore present a risk of a needle stick hazard. Handle with care.
- Refer to and follow the instruction booklet 'CSL_U02 Safe Use of Needles'. For more information, please refer to 'General Risk Assessment Form: Needles CSL_R03' (in the CSL).

Anyone working in the Clinical Skills Lab must read the 'CSL_I01 Induction' and agree to abide by the 'CSL_I00 House Rules' & 'CSL_I02 Lab Area Rules'

Please inform a member of staff if equipment is damaged or about to run out.



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Clinical Skills:

Part 1: Replacing a vaginal prolapse in a ewe



1 The model is attached to the underside of a table so that it is at the same height as a standing ewe.



2 Crouch down in front of the model.
Handle the prolapse gently to avoid damage (both in the model and a live ewe).
Using the palm of your hand gently raise the prolapse upwards towards the middle of the vulva.



3 With gentle pressure using the palm of your hand where possible, push the prolapse through the vulva and into the vagina.
Take care not to put pressure on prolapse with the tips of your fingers. In a live animal this may create a tear.



4 Apply gentle, even pressure to push the prolapse into the vagina.
Hold the prolapse in place with your fingers once it is in the correct position.



5 Gently use the fingers of your other hand to close the vulva.
You have successfully replaced the prolapse.



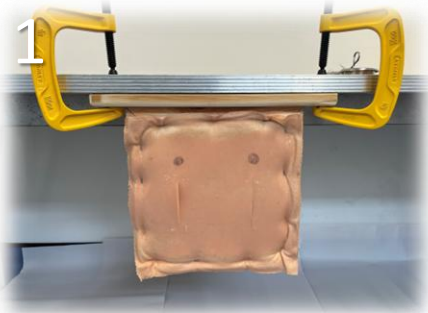
6 Note: In the model, the prolapse will reoccur when you remove your hand.
Now move to the suture model to place a modified Böhner suture.



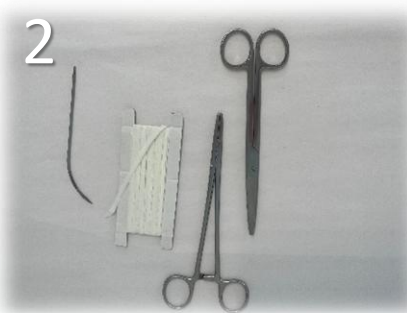
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Clinical Skills:

Part 2: Placing a modified Bühner suture



The model is attached to the underside of a table so that it is at the same height as a standing ewe.



Select the suture tape, scissors, needle holders and a 5-inch half-curved cutting needle.



Measure the correct length of tape - this should be long enough to go around the entirety of the vulva with approximately 7 - 8 cm extra at each end to be tied later.



Thread the suture tape through the eye of the needle.

Tip: Cutting the end of the tape on a diagonal will make it easier to thread the needle. Thread the thinnest part of the diagonal into the needle first.



Hold the needle in the needle holders (as indicated in the photo).

Introduce the needle approximately 1cm ventral to the ventral commissure of the vulva and approximately 1cm to the left or right of the vulva (depending on what side you choose to start).



Pass the needle through the tissue in a dorsal direction. The needle should remain within the tissue until exiting at approximately 1 cm above and 1 cm to the right (depending on what side you started) of the dorsal commissure of the vulva. The needle should remain within the tissue of the vulva i.e. should not penetrate through the wall and into the vagina.



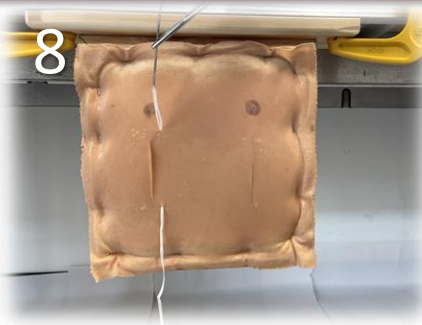
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Clinical Skills:

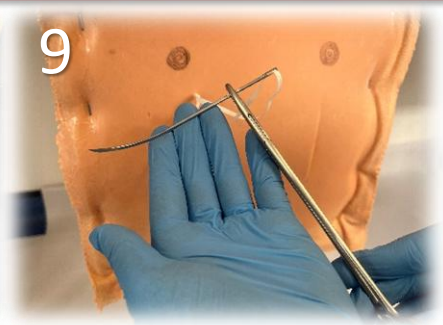
Part 2: Placing a modified Bühner suture



Pull the needle completely through until it is fully exteriorised.



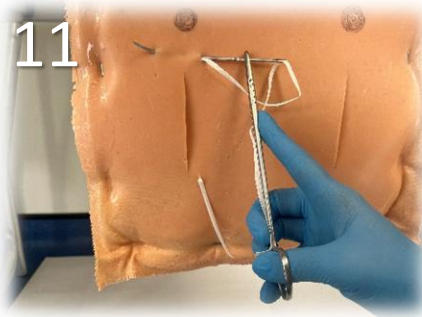
Continue to pull the tape through until approximately 7 – 8 cm remains at the ventral commissure of the vulva.



Reposition the needle in the needle holders (as indicated in the photo).



Reintroduce the needle into the exit point from the previous suture.



Pass the needle laterally from right to left (or left to right, depending on what side you started). The needle path should be approximately 1 cm above the dorsal commissure of the vulva and below the rectum. The needle should not penetrate through the wall and into the vagina or into the rectum and should remain within the tissue of the vulva.



Exit the needle approximately 1cm from the opposite side of the vulva.

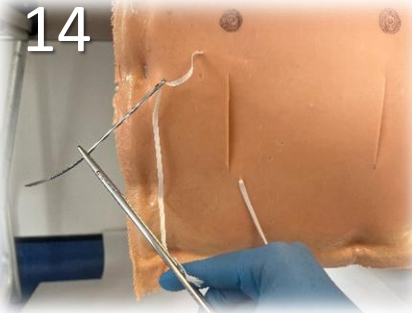


Clinical Skills:

Part 2: Placing a modified Bühner suture



Pull the needle completely through until it is fully exteriorised.



Continue to pull the tape through taking care to not to create any tension and ensuring 7 – 8 cm remains at the ventral commissure.



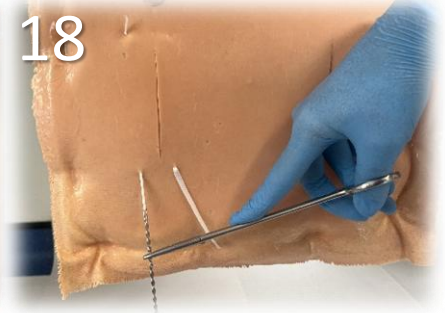
Reposition the needle in the needle holders (as indicated in the photo) so that the point of the needle is directed ventrally.



Reintroduce the needle into the exit point of the previous suture, this time with the needle pointing ventrally towards the ventral commissure of the vulva.



Pass the needle through the tissue in a ventral direction to approximately 1 cm below the ventral commissure of the vulva. The needle should remain within the tissue of the vulva i.e. should not penetrate through the wall and into the vagina.



Pull the needle completely through until it is fully exteriorised.



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Clinical Skills:

Part 2: Placing a modified Bühner suture

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Continue to pull the tape through so that 7 – 8 cm remains at the ventral commissure on the right-hand side (starting point).

20



There will now be two loose ends of tape at the ventral commissure of the vulva.

21



Before tying the suture, use your fingers to check that the suture material has not perforated the internal wall of the vagina.

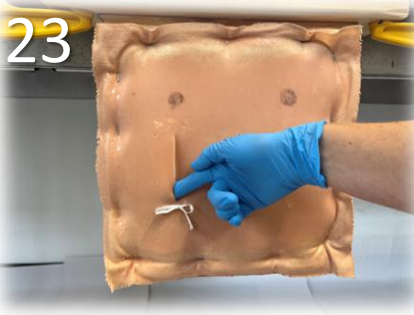
22



Tie the ends of the suture material in a bow.

The bow should be easy to untie when parturition commences.

23



The suture should be tightened only enough that **one finger can still be inserted into the vulva**, ensuring that urination remains possible.



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Resetting the station:

Sheep Vaginal Prolapse and
Modified Bühner Suture

1. Remove tape from Bühner suture model
2. Replace instruments in correct place

Station ready for the next person:



Please inform a member of staff if equipment is damaged or
about to run out.



I wish I'd known:

Sheep Vaginal Prolapse and Modified Bühner Suture

- In a live animal this procedure is performed with the animal standing. The prolapse should first be cleaned with an antiseptic solution to remove faeces and debris. **Do NOT attempt to clean the model vagina.**
- The vagina should be inspected for tears and any evidence that the ewe is lambing prior to replacing.
- In the live animal lubricating gel is applied to the prolapse to aid replacement. **Do NOT use lubricating gel in the model.**
- In a live animal replacing a prolapse will straighten out the urethra and allow the ewe to urinate, be prepared for this to happen!
- Without an appropriate retention method, vaginal prolapses are likely to recur in affected ewes. There are a range of ways to retain a prolapse including vaginal harness, prolapse spoon, or modified Bühner suture. Suturing the prolapse is a veterinary procedure and its use must be carefully considered as it is the most traumatic to the vulva.
- When suturing, the re-entry point of the needle should be exactly at the exit site so that the suture material is not visible externally and only a very small wound is created. Care must be taken not to pass the needle through the suture material.
- Vaginal prolapse usually occurs before parturition. A ewe sutured using the modified Buhner technique will require regular monitoring. At parturition, the bow is untied and obstetrical assistance may be provided if necessary.