
Model for Teaching Cervical Dilation and Uterine Curettage

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At least 15 percent of clinically recognizable pregnancies terminate in fetal loss, with the majority occurring in the first trimester.¹ Cervical dilation and uterine curettage (D&C) is frequently important in the management of early pregnancy loss to control bleeding and reduce the risk of infection. D&Cs are also done for therapeutic first trimester abortions in family practice settings. Resident experience may vary greatly, and some may feel inadequately trained in this procedure. The initial use of gynecologic instruments (ie, tenaculum, sound, dilators, curette) can feel awkward to the learner, and extensive verbal tutoring may be discomfiting to the awake patient. Training on a model can reduce these problems. After gaining basic skills on a model, the resident can focus on gaining additional skills and refining technique during patient encounters, thereby not using valuable patient care opportunities to learn basic knowledge and procedural steps.

This report describes the use of an inexpensive model to closely simulate a D&C. The model permits repeated practice by residents under the close observation of faculty.

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METHODS

The fabric model was developed under the guidance of physicians at the University of Washington Department of Family Medicine and is commercially available.* The model, designed to approximate a 10-week last-menstrual-period-sized uterus, is supported by elastic "ligaments" on a wooden frame (Figure 1). A standard Graves speculum can be inserted into the "vagina," permitting visualization of a cloth cervix. After placement of a tenaculum onto the cervix, a paracervical block can be demonstrated and the uterus sounded. Progressive dilation with Pratt or Denniston dilators follows: a drawstring allows for the cervix to retain each successive degree of dilation. Curettage with a suction catheter or sharp curette is then practiced. The characteristic "gritty" sensation of curetting an empty uterus is simulated by several Velcro strips secured to the interior of the uterine walls. A clear plastic panel in the anterior portion of the uterus enables the physician to view the procedure from overhead. Designed to provide practice in dilation and curetting, the model can also be utilized for teaching endometrial biopsy and intrauterine device retrieval.

Residents in the University of Washington Family Medicine Program utilize this model in conjunction with a didactic session on D&C. Using step-by-step written

* Medtex Products, 23101-35th Avenue West, Lynnwood, WA 98036.

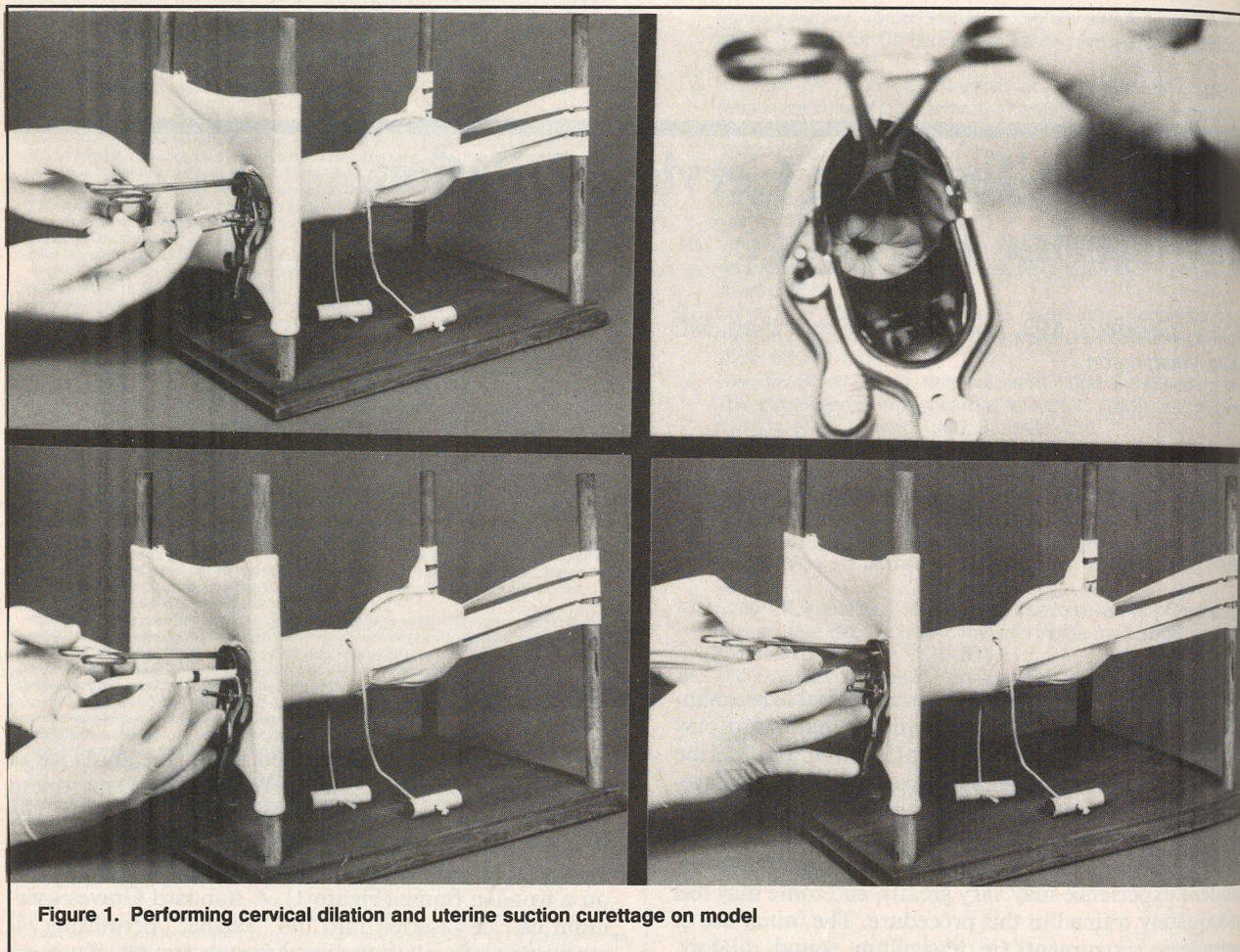


Figure 1. Performing cervical dilation and uterine suction curettage on model

instructions (Appendix), the procedure may be repeated until all portions are accomplished easily and in sequence. After practice with the model, residents are given instruction in identification of gestational sacs and chorionic villi. This instruction includes slides and pathology specimens.

COMMENT

Office gynecology procedures require dexterity with instrumentation, and a variety of factors can complicate the learning process. The soft-sculpture uterine model affords the physician the opportunity to gain facility with various procedures prior to practice on patients. The model was tested by physicians who had extensive experience with D&Cs, and they felt the model permitted a highly satis-

factory reproduction of the experience of D&C. Resident feedback has been uniformly favorable, with statements expressing that they were able to proceed comfortably to supervised D&Cs on patients.

The models can be used as often as a resident desires to practice proper technique and to improve performance and learning during patient care. The model has proven to be a valuable adjunct in training residents to properly perform this important procedure.

References

1. Nichols DH, Evrard JR (eds): *Ambulatory Gynecology*. Philadelphia, Harper & Row, 1985

APPENDIX

Techniques for Dilatation and Curettage

1. Confirm indication for dilatation and curettage.
2. Obtain consent.
3. Draw blood for typing (for Rh factor). Determine hematocrit level if excessive bleeding is occurring. Blood typing and cross-matching may be necessary in severe cases.
4. Reexamine the uterus to confirm size and position.
5. Apply sterile gloves.
6. Place sterile drape (a nonfenestrated drape in which a small tear has been made to admit the speculum works well).
7. Place sterile speculum.
8. Using Betadine or other antiseptic preparation solution, scrub the cervix with gauze held by sponge forceps.
9. Grasp anterior lip of cervix with a toothed tenaculum closing the tenaculum slowly.
10. Place a paracervical block using 8 mL of 0.25% bupivacaine (or 1% lidocaine but definitely *not* 2% lidocaine) at the 4- and 8-o'clock positions.
11. If the patient is not bleeding excessively and is stable, wait approximately 8 minutes for anesthesia to be obtained.
12. Sound the uterus (do not touch with the gloves the portion of the sound that will enter the uterus. If the sound must be bent, grasp the sound using a sterile 4 × 4-in gauze).
13. Dilate or check dilatation of cervix using Den-niston dilators so that an appropriately sized cannula can be used.
14. Attach cannula to tubing connected to appropriate collection and suction device (suction created should be approximately 70 cm mercury).
15. Turn on suction and use cannula tip to curette uterus.
16. If necessary, adequate evacuation can be verified or completed with a sharp curette.
17. Examine products to determine whether there is evidence that the pregnancy was intrauterine (if no villi are seen, one must consider ectopic pregnancy).
18. Instruct the patient in measures necessary to ensure uncomplicated recovery and provide prophylactic antimicrobials.
19. Give Rh₀-D immune globulin to Rh-negative patients.