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A NEW METHOD OF TAMPONING THE UTERUS POST PARTUM.[1]

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(With illustration.)

AT the present time practically all authorities are agreed that the intrauterine tampon post partum is a useful method of treat-

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ing postpartum hemorrhage, and in severe cases almost an absolutely indispensable measure for controlling the bleeding. Practically we have only one procedure for introducing the gauze—the method of Dührssen, who was the one to popularize this treatment for postpartum hemorrhage. Dührssen's method is carried out as follows: The anterior and posterior lips of the cervix are drawn down to the vulva by means of volsellæ; the left hand is passed into the lower uterine segment, and, with this hand as a guide, the right hand, armed with a strong dressing forceps, pushes the gauze into place. Broadly, there are two minor modifications of this method: one, to replace the left hand by specula in the vaginal fornices, the lips pulled down by volsellæ, and the gauze pushed home as above; Schauta dispenses with the volsellæ and specula ordinarily—otherwise the method is that of Dührssen. One of these three plans probably always will be in vogue in severe hemorrhages where time is the primal object. In an almost incredibly short time the uterus may be tightly tamponed by the method of Schauta, which requires the least preparation of the three methods. The great disadvantages of these procedures are that the gauze rubs more or less against the vulva and vagina and carries some bacteria into the uterine cavity, and the friction of the gauze and repeated introduction of the forceps may increase the abrasions normally present in the parturient canal post partum, or even perforate the uterus. The danger of the introduction of the germs into the uterus undoubtedly is least when volsellæ and specula are used. With an atonic uterus, or a widely dilated os and retraction ring, the danger of injury is reduced to a minimum by these methods. But when the orifices of the cervix or retraction ring are constricted, and possibly the cervix has not been effaced, as is seen in cases of rigid os (particularly of premature labors), the dangers and difficulties of tamponade are present. For these cases especially a substitute for Dührssen's method is to be desired. Recently the writer had a case where it was expedient to tampon the uterus for constant oozing of blood from the uterus and cervix; the firmly constricted retraction ring offered some considerable obstacle to a proper tamponade of the utero-vaginal tract. The principle of Wood's packer suggested itself as a means to be utilized in similar cases. The instrument which I present is Wood's packer modified to suit the needs of postpartum work.

The Instrument comes in three parts—the tube, the obturator,

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and the introducer. The tube has a length of twenty-eight centimetres and a calibre of eighteen millimetres. On the proximal end is a handle similar to that on Kelly's graduated urethral speculum. There is a pelvic curve of five centimetres; this curve is in the distal half of the tube, and its measure is taken from the centre of the lumen at the distal end to the prolongation of the line coincident to the external lower surface of the straight portion of the tube; a greater curve than this prevents a proper working of the introducer. The obturator has a conical shape and accurately fits the distal opening; its use is merely to facilitate the introduction of the tube. The introducer is a strong, highly tempered steel rod with three sharp

prongs on its distal end (the clefts between the prongs must be so rounded that by no chance may the gauze be caught); near the proximal end is a small cross-bar at such a distance from the prongs as to prevent their appearance beyond the distal end of the tube; some six centimetres further is the handle; the rod should be at least No. 12 French scale.

Methods of Use.—The tube, with obturator in place, is pushed up to the fundus uteri, guided by the left hand introduced into the lower uterine segment. The obturator is removed without withdrawing the hand from the vagina. An assistant brings the jar of properly prepared gauze within an inch or two of the proximal end of the tube; the end of the gauze is picked up with a forceps and pushed into the tube a short distance—*i.e.*, two

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inches; then the introducer is pushed home, carrying the gauze with it; rapidly withdrawing the introducer an inch, or at most two inches, again it is pushed home, repeating the maneuvre until the uterus and vagina are full. It is a useful expedient while packing to gently oscillate the distal end of the tube from side to side to throw the gauze in folds across the cavity. Two facts must be kept in mind: one, that if the introducer is withdrawn too much the gauze will be packed into the tube, thus preventing further working of the instrument, or at least hindering the progress of the gauze; second, the gauze must be of proper size, and so "felted" in the container that it feeds out easily—under no circumstances must the gauze be rolled in the jar. The method of using the instrument may be modified by holding the handle in the left hand and proceeding as before; however, my experience has taught me it is not so efficient as described above.

Its Advantages and Disadvantages.—By this method of packing it is unnecessary for the sterile gauze to touch living tissue from the time it leaves the container until it is *in situ,* therefore it is an absolutely sterile method. The soft parts receive a minimum amount of injury. The only assistance necessary is for some one to hold the jar of gauze near the tube. To tampon with the volsellæ and specula requires at least two assistants, one of whom must be skilled; Schauta's method compares with mine in that no trained assistants are needed, desirable though it may be to have such assistants. The disadvantages are two: that it requires more time to tampon—twice or thrice the time is needed over Dührssen's method—and the uterus cannot be so tightly packed. For these reasons it is entirely inappropriate for severe hemorrhages, but could be used where insufficient assistants were at hand. It is particularly efficacious in rigid os at term, or more especially in premature labors from the third to seventh months; in cases where the retraction ring is constricted; in lacerations of the vagina or cervix where it is inexpedient to repair the tears; in cases of rupture of the uterus where we wish to make as few intrauterine manipulations as possible; where, after prolonged intrauterine manipulations, as version, placental removal, etc., it is desired to tampon as a prophylaxis against secondary hemorrhage or infection.

Since the instrument was made I have had four opportunities to test its virtues between October 5 and November 12.

The first case was a deep tear of the cervix extending into the

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broad ligament, where the uterus was firmly contracted. The second was a woman five months pregnant; the woman had bled for a month. A continuance of vaginal tampons for forty-eight hours made no impression on the rigid os. After dilating with Hegar's sounds to admit two fingers, further dilatation could not be secured by Barnes' bags; evisceration and craniotomy were performed and the fetus delivered through the rigid cervix. After the third stage the packer was introduced and the tampon applied. In this case the tube was held quite firmly by the cervix. The third case had many conditions in common with the second. The fourth case was that of a placenta previa lateralis; the lower border of the placenta just touched the retraction ring. When the hand was introduced to perform version after the expulsion of Braun's colpeurynter, the placenta was found almost entirely separated, prolapsed in front of the head, and hanging by the upper rim of placenta near the fundus, requiring subsequent manual removal. As a douche did not stop the flow of blood and the uterus tended to relax, I tamponed with my instrument. At the moment of packing the retraction ring admitted two fingers.

The Gauze.—At the present time there is no gauze on the market suitable for tamponing the uterus post partum either by the method of Dührssen or by my method. Gauze in yard widths is too bulky for efficient tamponade and offers difficulties in its subsequent removal. The most convenient gauze for tamponing by the introducer, or Dührssen's method, is a strip one-half yard wide and nearly twelve yards long; this gauze is folded into a strip about two inches wide. In cases of extreme atony full twelve yards may be introduced into the utero-vaginal tract; in other cases the amount will depend on the laxity of the uterus and roominess of the vagina. A pint jar will hold nearly eleven yards of this gauze, if very tightly packed. To cover the needs of all cases the firm of J. Elwood Lee & Co., of Conshohocken, Pa., have arranged to place on the market a gauze of these dimensions, packed in an entirely glass jar, suitable for all tamponades of the uterus post partum, whether the method as above described is used or the method of Dührssen. The gauze will be impregnated with chinosol, six per cent; chinosol is practically inodorous, is non-toxic, and has an extremely strong bactericidal power. The company will be ready to meet the demand for such gauze charged with other standard antiseptics; the writer cannot, however, too strongly enter his remonstrance against the use

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of bichloride of mercury or iodoform gauzes for intrauterine tamponade—both are so toxic that the danger from their use in such a large absorbing cavity as the uterus is always present.

I have to thank Messrs. Sharp & Smith, of Chicago, for making the instrument for me.

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