

A REPORT ON A NEW MULTI-PURPOSE CERVICAL DILATOR

by

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Over the years, several cervical dilators were designed to serve the multiple objectives in dilating the cervical canal. To mention only a few, for curettage, evacuation or drainage of the uterus, or for a good brush biopsy. It is also required for introducing and removing I.U.D. and for a hysteroscope without getting the lens blurred with blood during its introduction into the uterine cavity. It is also useful for introducing differently sized cannulas for suction of the uterine contents.

Dilators currently in use are the Hegar's and the Fenton's. Bonney introduced an improved form on the earlier design, which limits its own entry to only 3 inches by a circumferential ridge—the distal end beyond the ridge being made conical. But the risk of penetration into the uterine wall in an acutely ante-flexed or retroverted uterus, especially when the cervix is short, is still there. The Goodall's dilator is manipulated with a central screw to open the two phalanges which in turn dilate the cervical canal. Here there is the risk of tearing the soft cervix of a pregnant uterus. The electrically-powered dilator, recently introduced by the Los Angeles State Hospital, has been criticised for its tendency to create

false passages along the cervical canal, during its functioning.

The new multi-purpose cervical dilator that we propose to introduce, comprises of an housing case in which are lodged a plurality of dilators (three in number), which are really hollow tubes of varying lengths and graded diameters, snugly accommodated one within the other and each being slidably disposed to the one immediately after it. The innermost tube contains a solid rod which functions as the first dilator. The members so accommodated can be projected for a definite range of length from the housing case. This length of projection is prefixed according to the length of the cervical canal (Fig. 1).

The dilators are made to move with the help of side screws found at their top, within the housing case and the corresponding larger dilators. They are thus moved until they project from the housing case into the cervical canal in sequential order, thereby effecting dilatation of the cervical canal and the internal os quickly and effectively, with no time being lost in withdrawing one and introducing the next. The houser with the dilators mounted measures 15 cms. in length.

The Method of Dilatation

General or spinal anaesthesia can be replaced by general sedation followed by local anaesthesia. With the patient in the lithotomy position a Sim's speculum is inserted into the vagina to expose the cervix and the same is held by two

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Alley's forceps on either side nearer the upper part of the external cervix. The new dilator is then placed on a warm, moist swab on the left palm of the operator keeping the projectile end in close proximity with the cervix and looping the two Alley's forceps with the ring and middle fingers of the same hand of the operator, so that the projected dilators can easily pass into the cervical canal. The first dilator can now be moved with the right hand of the operator by pushing the screw handle of the first dilator from its resting right notch, moving it down along the mid-channel of the housing case for the major length of the cervical canal and then by guiding it from the mid-channel into the slot on the left side of the mid-channel, and then moving it along that notch to the desired length. During this movement of the dilator from one position to the other, the tip of the dilator had extended from the housing case into the cervical canal to pass just beyond the internal os.

The second, third and fourth dilators are then similarly manipulated to move them from their respective slots on the right side of the mid-channel to their respective slots on the left. Thus, though they cover the same length, the progressive increase in the diameter of each dila-

tor effects the dilatation. Dilatation can be effected upto a diameter of 1.2 cms.

When so desired the last dilator can be detached from the housing case through a side notch and allowed to stay in the cervical canal, to keep it open so that access to the uterine cavity is made possible for various requirements (Fig. 2).

The instrument is made in metal and is strong enough to withstand thorough cleaning and sterilisation for repeated use. It is desirable to dismantle it soon after use for washing to avoid the possibility of the dilators getting stuck to one another with blood.

The main defect noticed about the instrument is that when the internal os is rather resistant to opening the last dilator may prove too big to go past the internal os. With a little patience, this can be overcome by injecting a little bit more 'Xylocaine' on either side of the internal os.

Often dilatation with the last dilator is not required for inserting the sharp curette or the smaller aspirating cannulas. The greatest virtue of the dilator is that it is 100 per cent safe and comparatively quick in performance. That it is compact and easy to pack and transport and not very expensive are added advantages. It is proposed to have the instrument put in the surgical instrument market soon.

See Figs. on Art Paper II