

USE OF HYGROSCOPIC CERVICAL DILATORS IN COLPOSCOPY

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INTRODUCTION

It is well known in colposcopy the difficulty to evaluate the margins of a lesion involving the cervical canal and how important this information is for the treatment and follow-up, particularly in cases of CIN.

Many techniques have been developed in order to improve the colposcopic visualization of the endocervical canal. All colposcopists know that, particularly in multiparous women, by gently depressing with a cotton swab the posterior lip of the external uterine os, one can extend the colposcopic field of a few more millimeters, sometimes enough to completely assess the margins of a lesion otherwise impossible to evaluate. Some authors (Kogan) have introduced the use of the cervical dilator (a small speculum mounted on a forceps that divaricates the cervical walls). Others believe that in case of inadequate colposcopy (one in which the squamo-columnar junction is not completely visualized) a thorough endocervical curettage with subsequent histological examination would guarantee a complete assessment. A cervical cone biopsy is considered by some as the best diagnostic and therapeutic procedure in cases of CIN extending into the cervical canal. There has also been available for the last few years the Hamou microhysteroscope that, because of its small size (about 4 mm without the operating sheath), easily penetrates into the cervical canal and, thanks to its various magnifications (1:1; 1:60; 1:150), allows an evaluation that is close to the microscopic examination of a cytologic smear or a histologic slide.

All these techniques have some drawbacks; the cotton swab dilatation obviously permits visualization of the canal for only a few millimeters and is usually possible only in multiparous women. The cervical dilators are often uncomfortable for the patient and often induce some bleeding that obscures the colposcopic view. The endocervical curettage allows a histological diagnosis, but is not well accepted by the patient and does not consent to exactly localize the area curetted. Furthermore, the material is often fragmented and difficult to evaluate histologically. The cone biopsy is a costly procedure and can impair the future fertility (most cases of CIN affect young women and frequently teenagers). The hysteroscopy is certainly the best diagnostic tool currently available to study the cervical canal. Its major drawback, besides the cost of the instrument, is that it has to be performed by an experienced person, limiting its use to referral institutions. The collection of the biopsy is rather complicated, and the assessment of the depth reached by the scope inside the endocervical canal requires a good deal of experience.

For all these reasons, we think it useful to introduce a new technique that, although it cannot replace the ones previously described, can be combined with them, giving a valuable contribution to the study of the cervical canal.

MATERIALS AND METHODS

We examined ten nulliparous women, 18 to 38 years of age, affected by CIN associated with koilocytosis, in which the tumor extended into the cervical canal with margins not colposcopically identifiable. A hygroscopic cervical dilator (Dilapan) was introduced up to the internal cervical os after Betadine lubrication; the patients were then examined after one hour. After the removal of the dilator (Dilapan) and adequate prepping (3% acetic acid and 5% Lugol's solution) the patients were immediately examined with a camera-equipped Leisegang colposcope. In three patients a microhysteroscopy had been performed before the insertion of Dilapan, using a Hamou microhysteroscope after Watermann blue and Lugol's solution application.

RESULT

In all the examined cases, the cervical dilatation brought about by Dilapan (approximately 6.4 mm in 1 hour) and particularly the endocervical extroversion caused by its removal ("champagne cork" effect) allowed a thorough colposcopic examination. In all ten patients it was possible to identify with certainty the endocervical margins of the lesion and to carry out aimed biopsies with the forceps usually used for the exocervix. In the three cases in which a microhysteroscopy had been previously performed, the two techniques showed similar results. In two patients (CIN III), a cervical cone biopsy was done and the histological examination confirmed the results obtained with the post-dilatation colposcopy.

DISCUSSION

The insertion and removal of the cervical dilator (Dilapan 3.5 mm) have been extremely easy in all cases and only one patient showed a mild vagal reflex at the time of removal. In only two cases we had to grasp the cervix with the Hegar forceps at the time of the insertion (of the dilator) but not during removal; this is particularly important because the lesion caused by the forceps on the cervix could have impaired the colposcopic examination. The removal of the cervical dilator (which bears a wire at the vaginal end) was carried out with ring forceps pulling the extracting tip of the dilator. Immediately after the extraction, the cervical dilatation (6.5 mm) and the cervical canal extroversion allowed an adequate colposcopic examination. The relatively atraumatic procedure and the progressive dilating effect of the polymer (Dilapan) were the cause of a light bleeding in only three cases, easily controlled by a solution of acetic acid, and never in a quantity interfering with the colposcopic examination.

In two patients affected by CIN III with involvement of the endocervical canal, and considered not to be reliable for a close follow-up, the procedure provided the information needed to perform a cone biopsy. In six cases of CIN (three CIN I, two CIN II and one CIN III) in which the dilatation and extroversion of the endocervical mucosa allowed a thorough evaluation of the deep cervical margin, a colposcopically-guided, 170-watt power thermocoagulation was done. In the two remaining cases of CIN I with associated koilocytosis, given the simultaneous presence of vulvo-vaginal condylomatosis, we preferred to use an immunopotentiating treatment.

We therefore think that, because of its low cost and relatively simple utilization, this is a useful diagnostic technique, supporting colposcopy in the evaluation and treatment of the lesions involving the endocervical canal.

Figure 1: Cervix before insertion of "Dilapan".

Figure 2: Cervix with "Dilapan" inserted.

Figure 3: Cervix after removal of "Dilapan". Visualization of the squamo-columnar junction.

Figure 4: Cervix after removal of "Dilapan". Extroversion of the endocervical mucosa.

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