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Colposcopy today

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Summary

A brief digression of the advent and development of colposcopy is described, along with its advantages in the prevention and diagnosis of uterine cervical cancer.

Key words: Colposcopy; CIN; Cervical cancer.

Introduction

The contribution of colposcopy in the prevention and diagnosis of uterine cervical cancer is universally acknowledged, although it was originally only utilized by German physicians or by countries with scientific relations with Germany. Its evolution coincided with the development of more advanced instrumentations and the knowledge of preinvasive or invasive lesions of the cervix.

Colposcopy today

Since Hinselmann introduced colposcopy as a useful tool in the study of the lower genital tract in 1925, the technique has experienced different avatars [1, 2]. Being a German technique, after World War II, its use was limited to those countries under the scientific influence of Germany.

Two pathologists De Brux from France (1967) [3] and Richart from USA, (1967) [4] discovered the real significance of the so-called dysplasias, and demonstrated that it was the same disease with the capacity to progress to carcinoma. Richart introduced a new terminology "cervical intraepithelial neoplasia" (CIN) grades 1, 2, and 3.

National cervical cancer screening programs have been cytology based. More recently, the knowledge of the etiopathogenic role of HPV persistent infection in the development of cervical preinvasive and invasive lesions has added new useful screening tools such as HPV tests. Nowadays the role of colposcopy is relatively well defined as an aid to diagnosis instead of a diagnostic test itself in patients with abnormal cytology in the absence of a grossly visible lesion. This fact has classically limited its practice to experienced colposcopists who work in specialized units, where most will limit the use of the technique by just nearly describing extension and morphology of the lesion. The usefulness of colposcopy should not be limited to the approach of premalignant or malignant diseases of the cervix, because it is a dynamic instrument that allows clinicians to detect, describe, interpret, and even predict severeness and grading of the observed lesions, benign or not, that otherwise would be misdiagnosed or not diagnosed at all by the naked eye. Moreover colposcopy helps in this same way when we talk about vulva, vagina, perineum, and perineal regions. This article is not intended to include a comprehensive listing of all known dermatological or pathological disorders that may be diagnosed by using the colposcope in vulva or vagina, but to highlight that there are many common disorders that could be identified [5].

There is also some concern on the fact that postponing the colposcopy to be performed in a specialized unit and the drawbacks that this kind of practice could bring to the patients' personal (psychologically) and social/working life (due to the need to book two appointments), every time that a patient is encouraged to go to a specialized unit to have a colposcopy, fear an anxiety could affect her, knowing that there is a need for further investigation. As for cost-effectiveness, when colposcopy is part of the routine gynecological examination, there is no extra charge. The expense of a colposcope is covered indirectly, including no need of reassurance of the patient in another visit, reduction of naked eye misdiagnosis or underdiagnosis, precise application of topical treatment, and thereby decreasing complications and avoiding insufficient therapy, and patients' anxiety related to the colposcopy itself is completely reduced and almost nonexistent [6, 7].

When mentioning the uterine cervix evaluation, we also dear to recommend the routine use of colposcopy during the annual gynecological check up. It is quite clear that such proposal implies some problems: increase in the time of the consultation, requires some knowledge of the technique, but also

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has some other clear advantages than those stated before: as the technique obliges to introduce the speculum in order to visualize the entire cervix, the number of cytologies without glandular component decreases and the colposcopy would help the clinicians identify if there is any extension of the lesion to the endocervix or vagina. In some cases, as we know the expert colposcopist had diagnosed a severe lesion, and cytology gave a false negative diagnosis [8].

In the recent years, light amplification by the stimulated emission of radiation (LASER) with CO_2 technology has become an important and excellent tool to treat vulvar, perineal, perianal, vaginal, and cervical disorders, because of its major advantages when compared with traditional techniques (scalpel, electrosurgical excision procedures, etc) such as: high degree of clinical efficacy, bloodless field, sparing of normal tissue, rapid healing with minimal scar formation, small number of complications, and microscopic precision due to the possibility to couple the LASER beam equipment to the colposcope. If this technology was introduced to the gynecological field with the intent to remain longer, as it appears to be, colposcopy will be an important partner with LASER energy to achieve this goal. On the other hand, it is quite surprising the rapid spread of ultrasounds used by the "general" gynecologist giving a definitive diagnostic, in spite of the imaging specialists that normally have better tools and the responsibility of the accurate diagnostic.

With this article, we as a group with enough experience in colposcopy want to encourage other similar groups and general gynecologists themselves to rethink and argue this great and useful gynecological technique [9, 10].

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