Emphasizing the value of colposcopy

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“I considered that even in human languages there is no proposition not involving the entire universe; say the tiger is that begat tigers, deer and turtles devoured, the grass that fed the deer, the land which was the mother of the grass, the sky that gave birth to the earth”.

The writing of God, in The Aleph.

The easy access of the cervix in the gynecological examination has allowed the development of different techniques for its study. The direct and simple vision, after placement of the speculum, is insufficient, so the use of the colposcope, allows, through a binocular magnifying glass equipped with a powerful light, a dynamic study of the cervical epithelium. The appearance of the observable cervix to colposcopy depends on the epithelial and the stroma features. The architecture of the normal cervical epithelium offers characteristically patterns, easily observable by the vision of the colposcope, as well as, the changes produced by the various pathological processes that affect the cervix, including cancer precursor lesions. These patterns have mostly been correlated with pap smears and biopsies.

Colposcopy has low specificity, but is a highly sensitive technique so it is used as a selective test, with precise and specific indications whose fundamental value lies in the identification of lesions of the cervix and taking biopsies of those injuries. Different colposcopic indices have been used with scales based on the margins, the outline, the vascularization and the appearance of the lesion after the application of acetic acid and lugol's solution. One of the indexes mostly used, to unify the diagnostic criteria in the studies, has been the Reid index. This index is useful to identify the area where the biopsy is going to be taken in case of heterogeneous lesion with different degrees. However, even using these indices, variability between colposcopists is high.

In order to unify criteria, the "International Federation for Cervical Patology and Colposcopy" (IFCPC) has established the criteria for the classification of cervical lesions with a colposcopy. The last review was presented in the year 2002 Barcelona, which describes the three types of epithelium in normal cervix: cylindrical, squamous and metaplastic (normal transformation or regeneration zone, NTZ/NRZ). This transformation zone is characterized by a high cellular activity which settles the majority of invasive and preinvasive lesions; it corresponds to the portion of the cervix which originally had a columnar epithelium and now has a squamous epithelium, where the phenomena of squamous metaplasia occur continuously, and are influenced by local hormonal
changes and changes in vaginal pH. The cells of the normal squamous epithelium, under the influence of hormonal estrogen, are rich in glycogen and low in protein, which under normal conditions allows a proper uptake of iodine (Schiller test).

The presence of certain oncogenic factors, especially HPV, condition an atypical cell pleomorphism that produces a disruption of the normal squamous epithelium stratification pattern, giving a new look to the transformation zone that would no longer be considered as normal. The specific cellular aspect of the atypical transformation zone (ATZ) contains cells anaplastic, basaloïd, with nuclear growth and reduction in the cytoplasm. These epithelial disturbances induce changes in endothelial cells of the adjacent capillaries, causing alterations in stromal vascular network. Blood vessels increase, become tortuous or anarchistic trips, making it easier to see them through colposcopy. The IFCPC colposcopic classification (1), in its two editions (1990 to 2002), establishes, within the section of abnormal colposcopic findings, a gradation that difference subtle or mild changes (minor changes) from those variegated colposcopic patterns showing greater severity (major changes). And although it is assumed that not all abnormal colposcopic finding corresponds to a precursor lesion of cancer, using this categorization, and generically, we know that most of the images listed as minor changes often correlate with low-grade squamous lesions, and the listed as major changes with high-grade squamous intraepithelial or invasive lesions.

Designing an ideal assessment of the cervix with high sensitivity and specificity strategy has not been easy, as the widely used although they are sensitive, are not very specific. Taking into account the slow evolution of cancer of the cervix and the recognition of that the persistence of the infection by the virus of HPV as a necessary condition, but not sufficient, in the genesis of cancer of the cervix, carried out different research directed towards the primary detection of it. What led recently to the Food and Drug Administration (FDA), to approve as screening test for cervical cancer, a human papillomavirus (HPV) DNA detection test Cobas ®; simple application, in women above 25 years of age. Considering that statistically, those of younger age have a high degree of spontaneous regression of HPV infection and preinvasive lesions (5). This test can detect 14 high-risk genotypes of HPV: HPV 16 and HPV 18, separately, and as a group the remaining 12. A major North American study, "ATHENA" (The Adressing the Need for Advanced HPV Diagnostics) published in 2011 and its revision in 2013; prospective 3-year-old covering a population of more than 40,000 women who held liquid-base cytology and HPV genotyping with the Cobas ® test, threw new guidelines about indications for colposcopy as selective and specialized method. Colposcopy would be conducted immediately in those patients with positive Cobas test for HPV 16 and / or 18; or in those positive for Cobas for the group of 12, but negative for 16 and 18 with a liquid-based cytology that was pathological. The remaining would come into other protocols that do not include colposcopy. (3-4) The indication of the colposcopy having a pathological result in cytology of ASCUS (atypical squamous cells of undetermined significance) or greater degree and test positive for high risk HPV, generates high levels of anxiety in patients and is perceived as negative.

In a recent observational, prospective study in a cohort of 706 women, aged between 29 and 60 years (2), It was demonstrated that the initial anxiety, which was independent of the degree of abnormality in cytology, decreased in the Group of women which was informed from the beginning and clearly, that the abnormal test result did not indicate that they had cancer and that they should be referred to a Gynecologic Protocol including colposcopy. Not to the patients who did not receive such information.

In the Hospital Carlos J Bello of Venezuelan Red Cross, based in Caracas, in the Post Graduate course of Gynecology and Human Reproduction, as basic and fundamental part of their
curriculum, the colposcopic training is included in the primary care patient. Applying this procedure routinely allows the gynecologist to recognize healthy from abnormal cervical epithelia. Offering an early screening of cervical lesions, especially in a Venezuelan population that probably does not have access to the tests already recognized and used worldwide for the detection of HPV.

Knowing through experience and highlight the benefits of colposcopy as a technique practiced by the same gynecologist, provide more comfort to the patient, shorten the time and would probably generate less expenses. It is important to continue to make efforts in our country for the approval of the preventive HPV vaccine, widely used in the world, as well as efforts equate us with new techniques for detection of these viruses, recognizing that the pathology of cervix affects a large number of women and is a marker of underdevelopment.


References:


