

COLPOSCOPY AND CYTOLOGY IN YOUNG WOMEN UP TO THE AGE OF 20: AN ANALYSIS OF 401 CASES RESEARCH FOR A NEW SCREENING PROGRAMME

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The presence of cervical neoplastic pathology occurs often around the age of 30, also if in most cases it does not exceed the carcinoma in situ.

In our observation programme of the uterine cervix in various age groups, we have studied in a previous publication (¹) the conditions of the cervix during the neonatal period, observing the frequent presence of ectopia. While we are still doing a research on the cervix in the child like period, we present a study executed on very young women (over 400 cases), in order to verify the cervical situation during adolescence. For this purpose we have observed the relations between the two cervical epithelia, the presence and behaviour of ectopia at this age, the related phenomena of repair which are often associated and the eventual atypical deviations in the junction area, which can precociously start and prelude many years before the evident oncologic symptoms.

SUMMARY

The Authors have observed by colposcopy and cytology, 401 patients under the age of 20 and have compared the results obtained with those of a similar control group with ages ranging from 20 to 25. They observed the incidence of normal cervix and of other colposcopic reports. From the comparison between the colposcopic and cytologic data emerged that the cytopathologic diagnosis does not put the cervical alterations of inferior level than dysplasia in evidence, in a large number cases as colposcopy does.

There is a very close relation between the incidence of pathologic cervical lesions and sexual activity.

Correlation between cervical pathology and use of hormonal contraceptives and presence of cervico-vaginal phlogosis, was not possible in this type of survey.

The Authors therefore propose a new type of mass screening, which should substitute the actual one, that is substantially based on cytology and on early diagnosis rather than prevention.

MATERIAL AND METHODS

The survey has been conducted on 401 patients aged between menarche and 20 years, who underwent a cytologic and colposcopic examination.

The results were compared with those of a same number of subjects aged between 20 and 25 years.

The patients were not selected, in fact they were referred to us from the Clinic and from consultants without any primitive ascertainment on the uterine cervix condition.

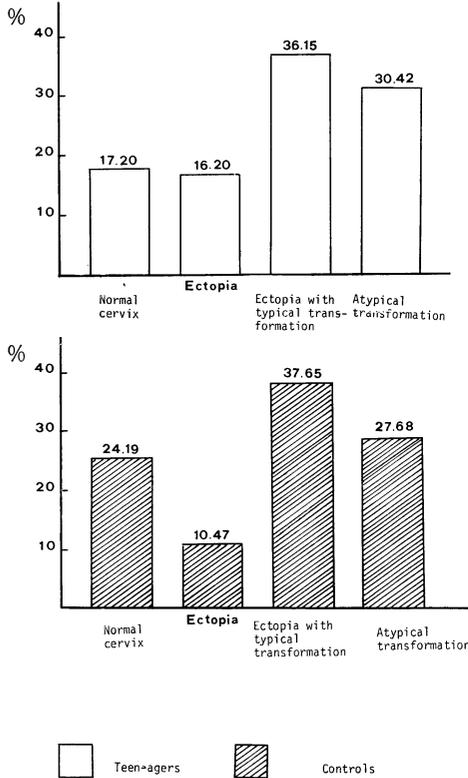
The eventual cervical modifications and their relation with sexual activity, the use of hormonal contraceptives and the presence of cervico-vaginal phlogosis were studied in each group.

The colposcopic pictures were divided into four groups: the 1st one includes cases with cervix covered by a malpighian epithelium (normal cervix); the 2nd one includes cases with a glandular esocervical cilindric epithelium, in which the junction area is linear without evident repair aspects (ectopia); the 3rd one combines the pictures of an ectopia with a regular repair phenomenon (ectopia + typical repair); the 4th includes cases in which the repair assumed irregular aspects with areas of "white epithelium", "punctation", "mosaic", "keratosis", according to the 1975 International Classifica-

Reprinted from

**Eur. J. Gynaec. Oncol. - ISSN: 0392-2936
II, 2, 1981**

Table 1. — Colposcopy results in teen-agers and controls.



tion (2), pictures defined by us as atypical repair according to Coupez theory (3).

Finally, colposcopic data have been compared with the cytologic and sometimes with the bioptic results.

In order to investigate the eventual relation between sexual activity and cervical pathology, to each patients of both groups was asked the age of the first intercourse, the frequency of intercourses and the number of partners. The series has been subdivided into two groups: one including subjects having intercourses since less than three years and the other group for subjects having intercourses since more than three years.

Moreover, a verification has been made wether the patients used contraceptives and if so, of which type.

RESULTS

From the analysis of the global colposcopic results for our series (table 1),

it is evident the low incidence of cervix regularly epithelized in women under age of 20 (17.20%), in whom we have found colposcopic pictures of ectopia, with or without typical repair in about 53% of the cases, and already evident atypical repair phenomena in 30.42% of the cases. A centred biopsy, executed in these last cases, has showed phenomena of squamous metaplasia with discontinued superficial keratinization and parvicellular infiltrates.

These reports represent an accelerated maturity process of the metaplastic epithelium and correspond colposcopically to areas of simple leukoplakia or with basic or mosaic aspects. The presence of histologic reports of dysplasia in young patients has never been observed, while there were five cases of cytologic mild dysplasia, all cured after anti-inflammatory therapy.

The distribution of the various colposcopic pictures found in young girls less than 17 years old, has been reported separately (table 1a). Such a distribution seemed to us indicative of a trend, even it it has no statistical value, due to the too small number of cases.

The results of the control group are not that much different than those of the group in examination. In fact, 7% more of regular cervix coincide with a corresponding number of women previously subjected to cervical diathermocoagulation and the incidence of ectopia with typical or atypical repair remains almost unaltered.

In this fascia of age, the presence of cytologic dysplasia was found in 7 cases of atypical colposcopic repair, 4 of them were confirmed at the histologic examination as dysplasia.

Comparing colposcopic with cytologic results, it has been clearly pointed out how cytology detects the presence of an ectopia under the statement "alterations ectopia type", that is the presence of cilindric cells, in a very low percentage of cases in respect to the effective presence of the lesion (table 2). The same happens for what regards the typical and atypical repair of

Table 1a. — *Colposcopies in girls till 17 years old (44 cases- 10.97 % of teen-agers).*

Normal cervix	
Ectopia	
Ectopia with typical transformation	
Atypical transformation	

which cytology reveals the presence, talking respectively of typical and atypical metaplasia only in 11.72% of the cases versus their real incidence of 36.15% and 30.42%.

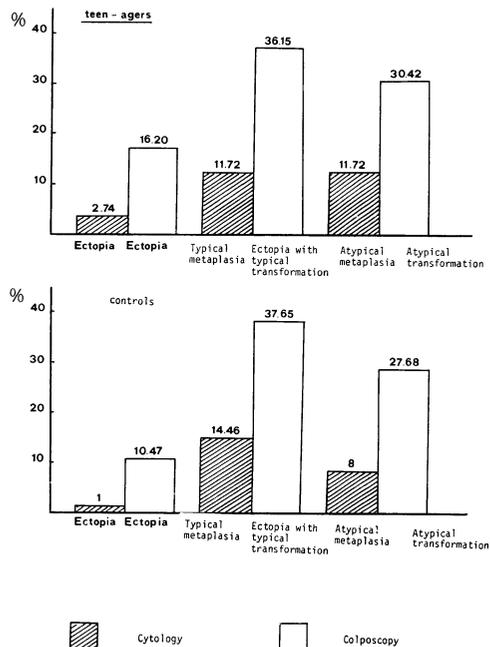
The same data have also been obtained in the control group.

We must point out for what concerns intercourses, that the main part of women observed, including the teen-ager group, had already intercourses. Even if we have colposcopically examined small number of virgin girls without difficulty.

Analysing in detail (table 3) the various colposcopic pictures in relation with sexual activity, one can observe an increase of atypical repair areas in the group of women with more than three years of sexual activity, with a significant lowering of the simple ectopia incidence and a higher rise of the latter together with typical repair phenomena.

Reliable results did not emerge from our survey on the relation between hormonal contraceptives and cervical pathology. The more, we have not deduced any

Table 2. — *Correlation between colposcopic and cytologic diagnosis.*



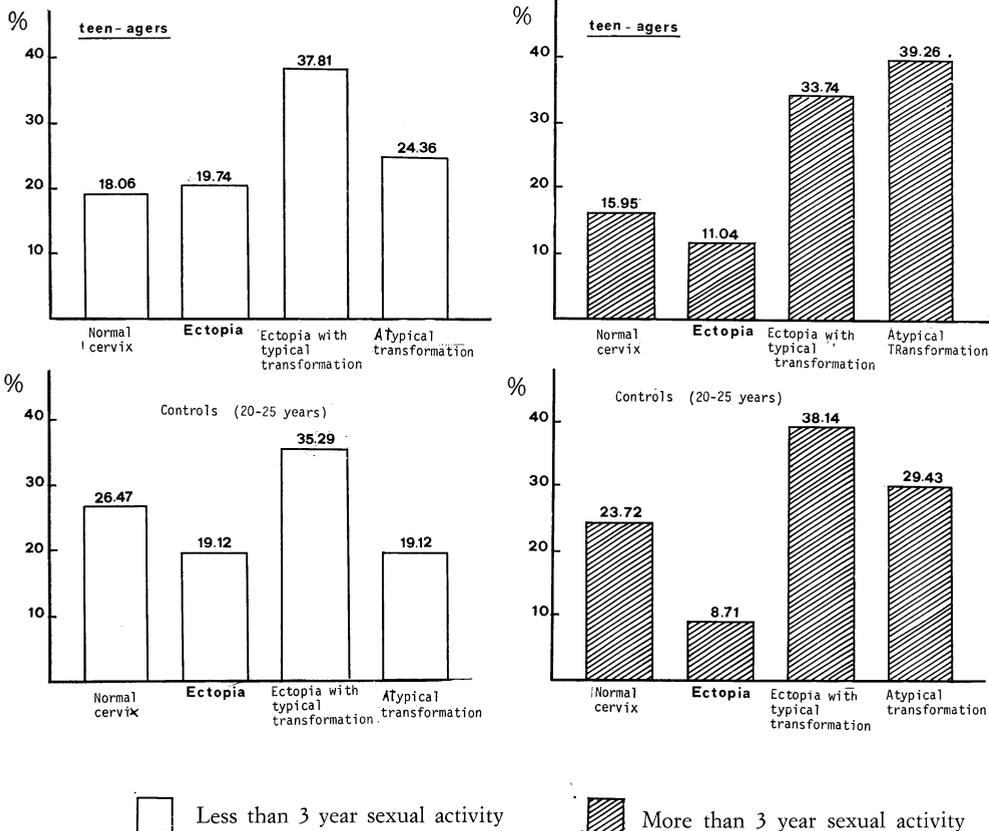
correlation between cervical lesions and presence of cervico-vaginal phlogosis.

It is however pointed out that the incidence of phlogosis in the very young did not stray substantially from that in a large population discussed by us in a previous paper (4).

blish that evolution to dysplasia starts after the age of 20.

The cytologic examination eventhough necessary to reveal the presence of an eventual dysplasia, is not always able to reveal benign cervical lesions which represent the major part of cervical patho-

Table 3. — Colposcopies in relation to sexual activity.



DISCUSSION

We can deduce that ectopia is already present at the earliest age and that on the other side, repair phenomena that begin too early do not lead to a spontaneous cure, therefore the lesion persists as it has been shown by a comparison with the control group. We have been able to est-

ablish the prevalence of the younger. The colposcopic examination is therefore an essential mean for the screening at this age.

We have observed in our series, in agreement with other Authors (5, 6, 7), an increase of typical and above all atypical repair in women with more than three years of sexual activity, but we cannot affirm that

sexual activity and its precocious start, especially in teen-agers, are relevant factors in establishing atypical repair phenomena, for the limits of our statistics. On the other hand our data cannot be neglected, if we consider that they originate from a non pre-selected series which can be considered a relative representative sample of girls up to the age of 20.

It was impossible to affirm precise informations about the relation between hormonal contraceptives and cervical pathology, because the use of hormonal contraceptives has been very limited in both groups examined, remaining under 50%.

In this study we took into consideration the assumption of contraceptives, taken by our patients, without laying stress either on the length of time of assumption or if it was exclusively limited to a previous time span in comparison to the moment of our observation. We plan to follow up the women who start using hormonal contraceptives at the moment of our first control, not forgetting that the opinions of the Authors vary, given that some of them admit a certain relation between contraceptives and atypical metaplasia^(8,9,10) above all as a stimulus that accelerates its development^(6,11), while others sustain the innocuity of such contraceptives.

We have not observed any relation between cervical pathology and vaginocervical phlogosis.

At the light of these results, we believe it is possible to discuss a type of screening different from the classic one. The latter in fact, basing itself on a mass cytologic examination and on colposcopy as a second level examination to localize topographically the lesion, is a real programme of precocious diagnosis and not one of prevention.

This can be valid to screen women older than 30 years, foreseeing periodic cytologic controls every one or two years, even if it requires a financial engagement with a dubious cost-gain relation.

It would be rather interesting to set up a prevention programme of cervical carcinoma, starting with the control of a full year of female population at a chosen age (e.g. the age of 18 corresponds with the coming of age) with the systematic use of colposcopy. In that way, cervical lesions would be detected, identifying the high risk cervix subjected to suitable treatments, in order to eliminate cervical pathology which is frequent and potentially evolutive since the earliest age.

Cytology should be also performed as a contribution to the detection of a dysplasia.

The follow-up of not at risk cervix and those no longer at risk after a treatment, could be considerably delayed (for example every five years up to 45 years). This programme replacing gradually the actual one, would allow the effective prevention of cervical carcinoma at a much lower cost.

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