Cell-mediated immunity in the course of cervical ectropion

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Summary: In the present study we evaluated cellular immunitary response in course of asymptomatic ectropion. Biopsies of the injured and healthy zones of the exocervix were carried out. All biopsies were examined by an immuno-histo-chemical method (Avidin-Biotin Complex, ABC) with monoclonal antibodies, in order to phenotype T lymphocytic subpopulations, in particular T helper lymphocytes (CD4), T suppressor lymphocytes (CD8) and Langherans cells (CD1), which are basic elements of the monocytic-macrophagic series.

Our preliminary findings showed a reduction of CD4, CD8 and CD1 lymphocytic subpopulations in ectropion zones, while these subpopulations are normally present in healthy zones of the exocervix. These findings support the hypothesis that, in ectropion, as in HPV infections and in CIN, a localized immuno-deficiency may appear and depress immuno-surveillance and cell-mediated response.

In conclusion, it may be supposed that ectropion represents a non-stable lesion, which therefore needs suitable therapeutic intervention.

Key words: Ectropion, immunity.

INTRODUCTION

The systematic treatment of ectropion gives rise to contrasting opinions: on the one hand "no symptoms, no therapy" [1], on the other "only an exocervix covered with squamous epithelium is normal" [2, 3, 4].

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In our opinion, however, some observations may suggest a systematic treatment of ectropion:

i) high incidence of inflammatory, histologically documentable, complicating diseases, whether symptomatic or not [2, 3];

ii) possible evolution of reparative processes to dysplastic forms [5, 6, 7];

iii) high incidence of asymptomatic sexually transmitted diseases, which are generally not treated, and form a reservoir for the transmission of the disease [8, 9].

In a former study [10], in patients with symptomatic ectropion, we observed, on hematoxylin-eosin stained exocervix biop-

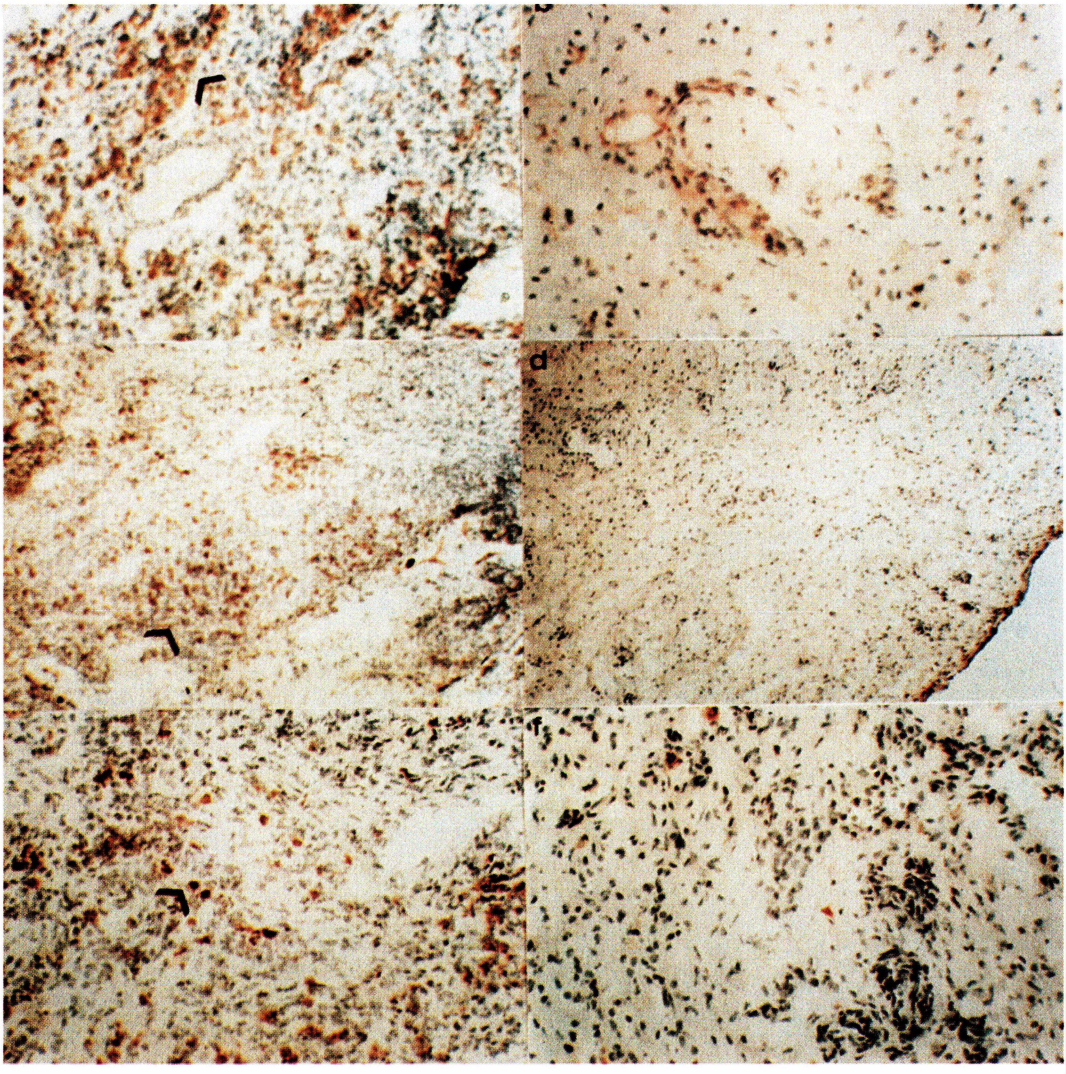

Fig. 1. — *Lymphocytic subpopulations in the exocervix*: *a*) T helper lymphocytes (CD4) in healthy cervical zones and *b*) in ectropion zones; *c*) T suppressor lymphocytes (CD8) in healthy cervical zones and *d*) in ectropion zones; *e*) Langherans cells (CD1) in healthy cervical zones and *f*) in ectropion zones.

sies, a numerous leucocytic population, which normalized after medical desoxyribonucleotide therapy (PDRN).

Lymphocytic infiltration was typed through an immuno-histochemical method (A-B-complex) with monoclonal antibodies, which showed a lymphocytic population of types B and T.

The aim of the present study was to evaluate immunitary response during asymptomatic ectropion, in order to type lymphocytic subpopulations.

MATERIALS AND METHODS

We selected 15 ambulatory patients of childbearing age (mean age 28 years) with asymptomatic ectropion, already under observation for various gynecologic pathologies.

The parameters considered were:
- clinical examination;
- cytologic examination;
- vaginoscopy;
- biopsy of injured and healthy zones of the exocervix.

All biopsies were immediately frozen in liquid nitrogen, and examined by an immunohisto-chemical method (Avidin-Biotin complex peroxidase) with monoclonal antibodies, in order to phenotype T lymphocytic subpopulations, in particular CD4, CD8 and Langherans cells (CD1).

RESULTS

Our preliminary findings showed:

1) a widespread presence of T helper lymphocytes (CD4) in healthy cervical zones (Fig. 1-a), opposed to an almost complete absence in ectropion zones (Fig. 1-b);

2) a numerous representation of T suppressor lymphocytes (CD8) in healthy cervical zones (Fig. 1-c), while the same subpopulations were absent in the ectropion zones (Fig. 1-d);

3) the monocytic-macrophagic component, normally present in healthy cervical zones (Fig. 1-e), showed an evident depletion in course of ectropion (Fig. 1-f).

CONCLUSIONS

Our data support the hypothesis that, in ectropion, a localized immunodeficiency may appear and depress immuno-surveillance and cell-mediate response.

Therefore, ectropion may be assumed to be a non-stable lesion and to need a suitable therapeutic intervention.

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