

Anal cancer and its similarities with cervical cancer – the rescue of forgotten studies

Câncer de ânus e suas similaridades com câncer cervical – resgate de estudos esquecidos

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Dear Editor,

Human papillomavirus (HPV) is a widely studied agent due to its association with cancers at different sites, as well as the precancerous lesions of these cancers⁽¹⁾.

In recent years, due to a growing number of cases of anal cancer and the clear association between HPV and anal cancer, similar to what occurs with cervical cancer, several studies have been carried out confirming this association and trying to identify groups in which precancerous lesions should be screened⁽²⁻⁴⁾. The similarities of histological findings between the two sites are evident, which leads to new terminology that recognizes such histological similarities⁽⁵⁾. In the face of the action of the HPV, both sites can develop precancerous lesions and invasive cancer. But who first identified this association and studied this similar tumor histogenesis?

According to Scholefield et al.⁽⁶⁾, the first etiological association between anal cancer and a sexually transmitted agent was suggested by Cooper et al.⁽⁷⁾. This study published in the journal *Diseases of the Colon & Rectum*, volume 22, November-December 1979, brought the report of four cases. The authors draw attention to the association with receptive anal intercourse. Scholefield et al.⁽⁶⁾, studying 82 patients of both sexes, would have been the first ones to describe the endoscopic aspects of an intraepithelial neoplasia in the anal canal. They performed an histopathological study and identified the HPV, demonstrating similarities to what would occur in the cervix.

However, researchers published studies in Brazil in a previous period that pointed out the similarities between cervical and anal cancers, with exciting suggestions. As the studies were published in a non-indexed journal a long time ago, what the authors, indeed the pioneers in this idea, defended was not within reach of other researchers. We feel obliged to correct this, using your prestigious journal to submit the data collected by the authors of the studies, I repeat, in a pioneering way.

Leão and Ferreira in 1974 and Ferreira et al. in 1975 published two important studies in the *Journal of Medicine of Universidade Federal do Ceará*^(8,9). The first one is entitled “Histogênese dos carcinomas epidermóides do canal anal – descrição das lesões microscópicas associadas (campos neoplásticos potenciais) e tentativa de uniformização da nomenclatura histopatológica e proposição de métodos auxiliares para o diagnóstico precoce” (“Histogenesis of squamous cell carcinomas of the anal canal – description of the associated microscopic lesions (potential neoplastic fields) and an attempt to standardize the histopathological nomenclature and propose auxiliary methods for early

diagnosis”) (Figure 1). In this study, the authors show and describe histopathological observations of identical phenomena (potentially neoplastic fields – dysplasias) that occur in the cervix and the anal canal preceding and/or coursing with squamous cell carcinomas, and say there were “clear similarities between the microscopic lesions associated with squamous cell tumors” (dysplasias) of the uterine cervix and the anal canal; in both sites there is a squamocolumnar junction...”.

The second study, entitled “Histogênese dos carcinomas epidermóides do canal anal: incidência de lesões matrizes – displasias – e de carcinomas “ocultos” em material oriundo de hemorroidectomia” (Histogenesis of squamous cell carcinomas of the anal canal: incidence of matrix lesions – dysplasias – and “hidden” carcinomas in hemorrhoidectomy specimen) (Figure 2), evaluated in 327 cases, between 1970 and 1974, with specimen from patients submitted to hemorrhoidectomy. In this study, the authors observed mild dysplasia

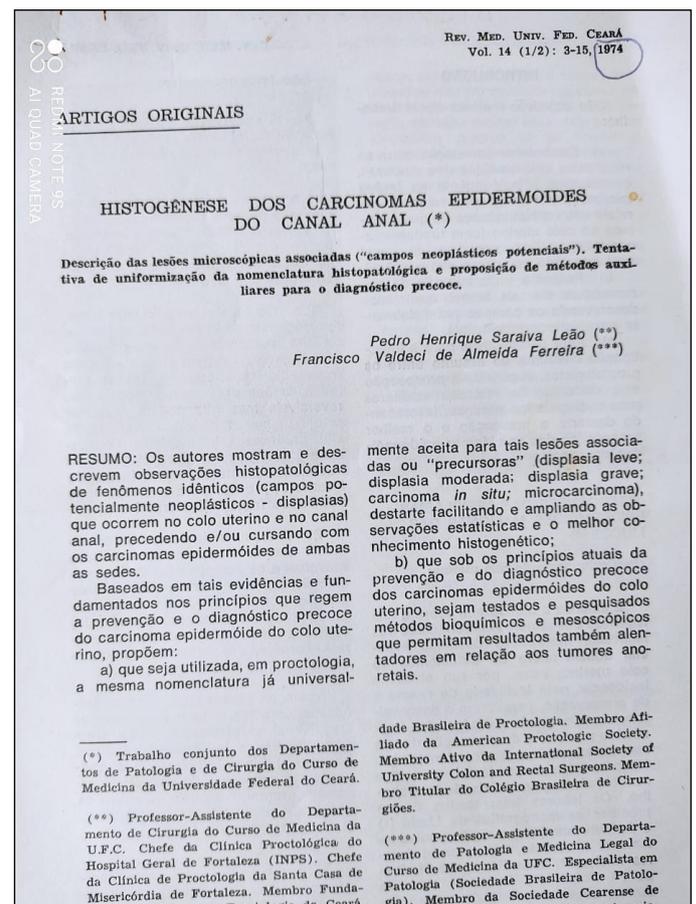


Figure 1 – Article published in 1974 by Leão and Ferreira⁽⁸⁾.

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in 28 (8.6%) cases, moderate dysplasia in 9 (2.8%) cases, severe dysplasia in 6 (1.8%) cases, adenocarcinoma in 53 (16.2%) cases, and squamous cell carcinoma in 15 (4.6%) cases. The authors consider the similarities of dysplastic and epidermoid lesions with the cervix and potential common factors in carcinogenesis.

As they were published in Portuguese in a non-indexed journal, these brilliant research studies, unfortunately, remained in the archives of Universidade Federal do Ceará Faculty of Medicine. In an attempt to do justice to these researchers, who were not remembered in the various studies that followed, we feel obliged to share their results and thoughts with the global scientific community to acknowledge their pioneering spirit.

Participation of each author

J.E.J.: Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. L.S.P.: Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources,

Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

Funding

The authors declare no financial support.

Conflict of interest

The authors declare no conflicts of interest.

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Received on: 02.02.2022

Approved on: 02.07.2022

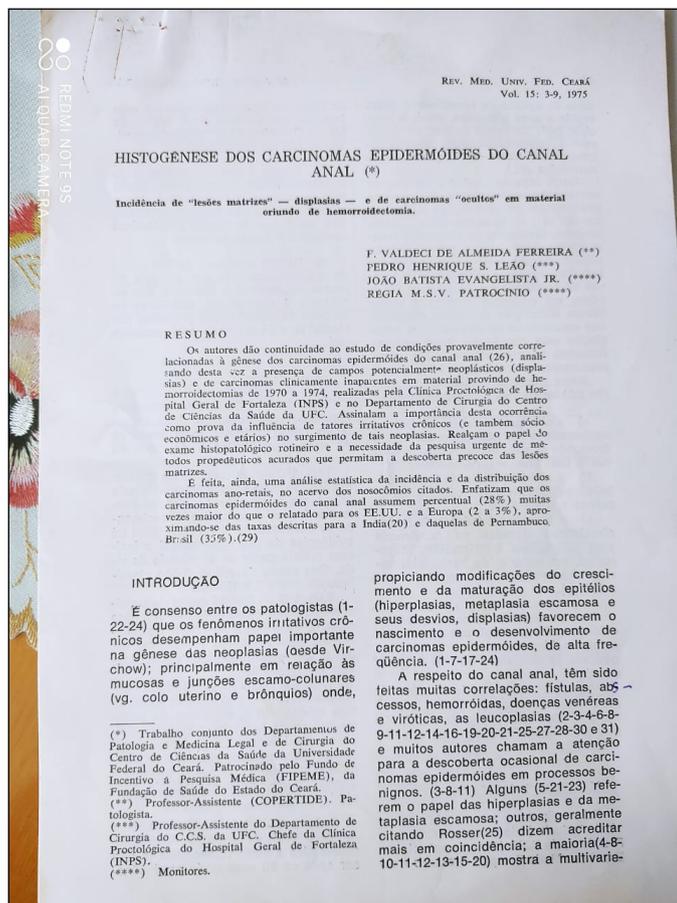


Figure 2 – Article published in 1975 by Ferreira et al.⁽⁹⁾