

Carcinogenetic action of the implant of acrylic tabs in ozena

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CASE REPORT

The patient in question was a 41-year-old male electrician with nasal obstruction, crusts and fetidness. In his youth he had been diagnosed as having ozena and underwent surgical intervention in November 1957 (Eyries' procedure with the implant of acrylic tabs in the external wall of both nasal fossae). In November 1962 he underwent a second operation (submucosal implantation of acrylic tabs in both sides of the nasal septum). He was symptom free for a long time, but symptomatology reoccurred.

Rhinoscopy showed ozenatic nasal fossae with whitish, infiltrative and exophytic large lesions in both sides of the nasal septum. The biopsy showed "epidermoid carcinoma with moderate differentiation" (Figure 1). On November 27th, 1971 we performed an amplified paralateronasal rhinotomy with subtotal resection of the nasal septum. The surgical findings are represented in Figure 2, in which we

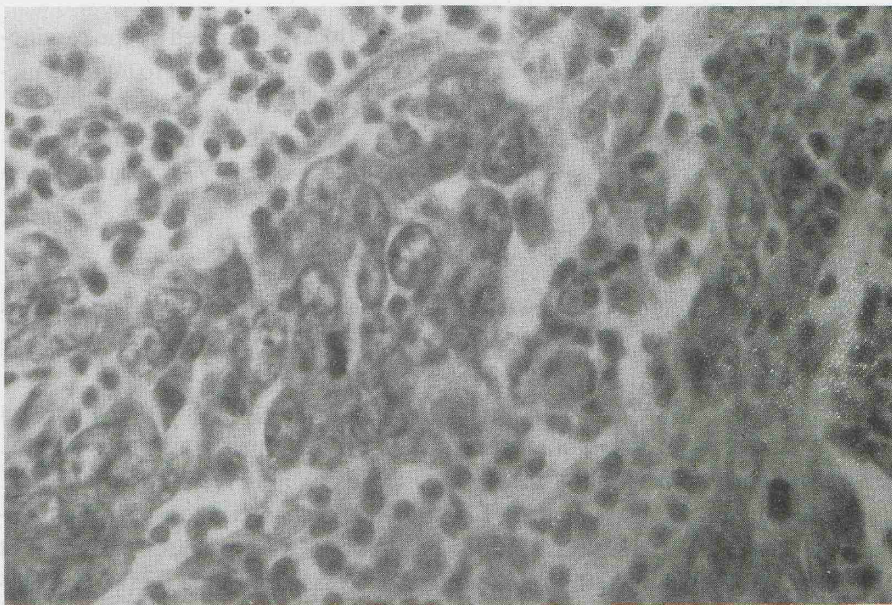


Figure 1. Epidermoid carcinoma of the nasal septum. Histopathology.

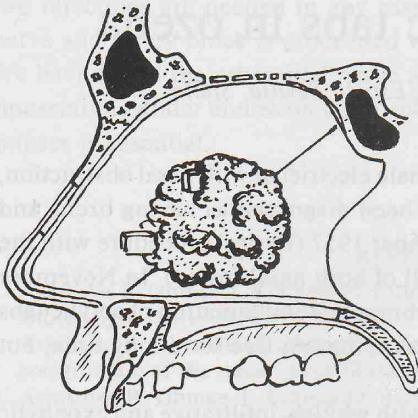


Figure 2. Scheme of the septum lesions, left lateral view.

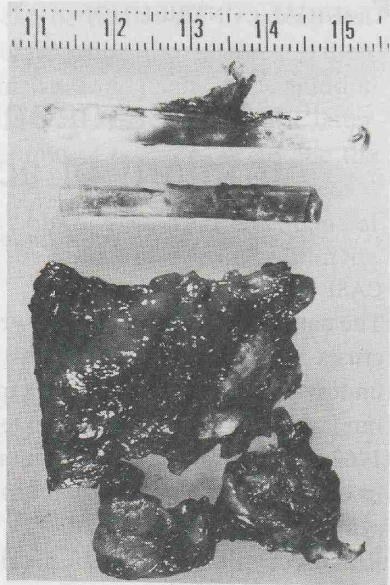


Figure 3. Operative piece of subtotal resection of the nasal septum, showing two acrylic tabs which were included in the lesions.

notice that two acrylic tabs are embedded in the thickness caused by the carcinomatous lesions. Posteriorly these acrylic tabs have been extracted to take the picture of the piece which had been operated on (Figure 3).

Three and half years later a recidivism appeared and a palliative surgical intervention was performed. The patient died on February 23rd, 1976 because of an incoercible hemorrhage.

AETIOLOGY OF NASAL CANCER

Until a few years ago our knowledge on the aetiology of nasal malignancies was limited to hypothesis. Now we have experimental and clinical data that we have arranged in the following order:

Experimentally, Herrold (1964) and Bottema (1972) produced carcinoma in the nasal fossae of rats and guinea pigs by administrating nitrosoamine. From a clinical point of view, the data we have gathered, are more interesting. Acheson, Hadfield and Macbeth (1967), studying 17 consecutive cases of carcinomas of nasal fossae and sinuses found that all of them were ebonists. Marandas et al. (1980) found that the tanino contents in dust was responsible for the development of adenocarcinomas of the ethmoid. There are no clinical data on the carci-

nogenesis by intratissular implantation of plastic materials. Only experimental data have been available so far. Oppenheimer et al. (1953) were able to develop sarcomas of subcutaneous tissue in rats with different materials such as dacron, polyethylene, polyvinyl, polyester, teflon and acrylic resins which particularly interest us in this case.

In our case, there is no doubt that the acrylic tabs implanted beneath the mucosa of the nasal septum caused the development of an epidermoid carcinoma nine years later. The carcinogenetic action of the acrylic has been proved experimentally and in our case two tabs had been included in the tumour mass. Moreover, a malignant degeneration in ozena has never been found.

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