CAPACITY FOR AMYLASE PRODUCTION OF ENDOMETRIAL CARCINOMAS

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Introduction

Amylase production has been associated with ovarian serous carcinomas\cite{1,2,3,4,5}, but not with endometrial carcinomas. Quite recently, however, amylase has also been found in ovarian endometrioid carcinomas\cite{6}. Therefore, it is interesting to study whether endometrial carcinomas have a capacity for amylase production or not.

Materials and Methods

Formalin-fixed and paraffin-embedded sections of 80 endometrial carcinomas were routinely stained with hematoxylin and eosin. They were examined by the peroxidase-antiperoxidase (PAP) method\cite{7} for amylase. Anti-pancreatic amylase which was kindly supplied by Dr. M. Ogawa was used for the present study. This antibody was prepared in rabbits and shown to have cross-reactivity with salivary amylase\cite{8}. The staining procedures used were described in a preceding paper\cite{9}. Cellular localization of immunoreactive cells with anti-pancreatic amylase was examined under a light microscope.

Results

Amylase was detected in 10 out of 80 endometrial carcinomas examined. Many immunoreactive tumor cells were present in 2 endometrial carcinomas; one was a well-differentiated adenocarcinoma (Photo 1, PAP method, \(\times 100\)) and the other a poorly differentiated one (Photo 2, PAP method, \(\times 100\)). However, only a few to some immunoreactive cells were found in 8 tumors; 5 well-differentiated, 1 moderately-differentiated, 1 poorly-differentiated adenocarcinomas, and 1 adenosquamous carcinoma.

Discussion

Amylase production has been associated occasionally with ovarian carcinomas, especially of serous type\cite{10,11,12}. Quite recently, however, we have reported an immunohistochemical demonstration of amylase in endometrioid carcinomas of the ovary\cite{13}. The detection of amylase in endometrial car-
cinomas is a novel finding, although anticipated from our preceding study. The present study suggests that amylase will be a useful tumor marker for endometrial carcinomas.

References

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