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OVERVIEW

Precancerous Lesions

It is essential to have a better understanding of both early molecular events as well as the cytological and architectural derangements that occur in colorectal carcinogenesis. These biological phenomena may be useful intermediate markers and in turn could become potential targets for modification by the use of chemopreventive agents.

Studies by Dr. Pretlow suggest that enzyme-altered foci and aberrant crypts may not be the same lesion although there clearly is overlap. Pretlow cautions that the acceptance of aberrant crypts as intermediate markers must rest on further studies that are correlated with the endpoint, viz., colorectal cancer.

In human colonic tissue, foci of aberrant crypts have been observed by both Pretlow (this volume) and Roncucci *et al.* [1]. Interestingly, aberrant crypts were more frequent in colonic mucosa from individuals with colon cancer than in those without cancer. In addition, the pathology of some aberrant crypts resembles the microscopic adenomatous polyps that have been described in familial adenomatous polyposis [2]. Methylene blue may be useful for the *in vivo* detection of these lesions [3].

Dr. M. Wargovich and his colleagues have utilized the aberrant crypt assay in the F344 rat to evaluate chemopreventive activity. Butylated hydroxyanisole and difluromethylornithine were effective in inhibiting aberrant crypt formation. Their laboratory is also engaged in detailed studies of the histochemical and molecular events that accompany aberrant crypt formation.

REFERENCES

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