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Immunocytochemistry of gastric mucosal blood groups

We read with interest the findings of the detailed study by Kapadia *et al*[1] on the immunocytochemistry of gastric mucosal blood groups.

We studied gastric carcinoma and agree that only a minority of these cases show loss of blood group antigens.[2] We were staining the alcohol-soluble glycolipid blood group substance present on the endothelial cells of all subjects, regardless of secretor status like Kovarik *et al*[3] and Davidsohn *et al*[4] 1971 and suppose that Kapadia *et al* were staining the water-soluble glycoprotein component—no mention is made of small vessel staining. We found changes in some tumours involving loss of A or B substance and persistence of H (loss of terminal residue). The peroxidase technique is more sensitive and we are presumably staining a different antigen but would suggest that non-secretors may express certain blood group antigens in gastric mucosa. The exploration of the hypotheses suggested on page 334[1] will require a comprehensive study of all types of A, B, H antigens.

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Dr Kapadia and colleagues reply as follows:

Our study (see reference 1 above) was largely concerned with blood group A, H, I and i activities of the mucus secreting epithelial cells of the stomach. The predominant material showing immunofluorescence would be glycoproteins. The conclusions were based on reactivities of the tissue sections with one each of the following antisera: anti-A, anti-H, anti-I(Ma), anti-I(Step) and anti-i(Den). Precise measurement of the amounts of immunoreactive material is not possible in tissue sections and it is likely that the staining reactions reflect the fine specificities and the affinities of antibodies in a given antiserum.

Additional problems in quantitation arise concerning glycolipids carrying the blood group antigens. These are extracted to varying degrees by formalin-fixation and paraffin-embedding procedures. It is possible that the proportion of glycolipids is increased in the tumour cells. Thus the staining reactions with endothelial and tumour cells reflect material that survives the extraction procedures.

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Prognostic value of measurement of elastosis in breast carcinoma

We are impressed by the correlation obtained by AJ Robertson and colleagues (July 1981)[1] between visual estimation of breast cancer elastosis, and that generated by Quantimet 720 analysis of the same sections of the material.

However, we are concerned that lack of homogeneity of elastosis in breast lesions may be responsible for the apparent absence of prognostic value. The topographical distribution of elastic fibres in benign[2 3] and malignant[4] breast lesions exhibits a focal, discontinuous character. In an earlier study[5] of breast cancer elastic we found poor correlation between gravidimetric assay of insoluble elastin in tumour samples and visual estimation of elastosis in histological preparations from elsewhere in the same carcinomas. Furthermore, even at microscopic level there are at least two types of tumour elastosis. One occurs in the vicinity of endogenous[6] ducts, blood vessels and interlobular stroma, and the other, around neoplastic[7] invasive carcinoma cells.

Before concluding that elastosis bears no relation to breast cancer prognosis, we feel that the elements of elastotic lesions should be examined individually and in their topographical context.

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Book reviews

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