problem, although unsensitised latex is not provided in the kit. Positive latex results should be confirmed in the dye test and current CMV infection excluded in those patients whose serum samples give false positive results in the latex agglutination test. This is important as clinical manifestations of both CMV and toxoplasmosis have many similar features.

Further work to identify the antigens recognised by sera giving false positive reactions is in hand, using the Western blot technique.

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References

Limited value of AgNOR enumeration in assessment of thyroid neoplasms

Argyrophilic nucleolar organising region-associated proteins (AgNORs) have recently been shown to be of interest in a variety of different organs and disease states, including lymphomas, melanocytic lesions of the skin, and pleural mesothelioma. In these and other cases the enumeration of nucleolar structures has been shown to be of diagnostic value in differentiating benign from malignant disease, or in distinguishing between low and high grade malignancy. Accordingly, a study of AgNORs in thyroid tissue was undertaken to see if the technique could distinguish between benign and malignant lesions, particularly follicular neoplasms.

 Thirty three specimens were examined and these included anaplastic carcinoma (n = 4), follicular carcinoma (n = 4), papillary carcinoma (n = 6), follicular adenoma (n = 6), and nodular colloid goitre (n = 13). The usual one step silver colloid reaction was run at room temperature for 35 minutes. Intranuclear dots of silver deposit were counted in 100 cells. Counting was difficult in papillary carcinomas because there were clear nuclei with often only one large intranuclear deposit, presumably corresponding to the nucleolus. There was, however, consistency in all categories within cases.

The results are expressed in the figure.

Figure Scattergram showing mean number of AgNOR counts for each case in anaplastic, follicular, and papillary carcinoma and for adenoma and colloid goitre.

There was separation of AgNOR counts between anaplastic and both papillary and follicular carcinomas. The $\chi^2$ test was used to assess significance between the pooled means of anaplastic carcinoma and both follicular and papillary carcinomas ($p < 0.05$). A similar difference was found between anaplastic carcinoma and adenoma ($p < 0.05$) and a more significant difference ($p < 0.02$) between follicular and papillary carcinoma and also papillary carcinoma and colloid goitre. There was also a considerable overlap between all carcinomas and colloid goitre. No other pairings showed a significant difference, particularly follicular adenoma and carcinoma. These findings are not as clear cut as in other studies where a clear distinction was obtained between high and low grade lymphomas, benign and malignant melanocytic lesions, and reactive mesothelium and mesotheliomas.

NORs are loops of ribosomal RNA and are therefore important in protein synthesis. It may be that follicular cells are in variable stages of proliferation or protein synthetic activity in both benign and malignant conditions. Certainly in the study of other endocrine tissues such as breast and prostate by means of the AgNOR method, discrimination between benign and malignant tissue has been relatively disappointing. This may be, in part, the result of RNA gene amplification in stimulated non-malignant endocrine cells, leading to increased gene copies and hence higher NOR numbers than in “resting” cells. AgNORs have therefore shown little value in differentiating between benign and malignant follicular neoplasms in view of the “overlap” in numbers between these groups.

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References

Coulter Plus IV leucocyte volume analysis instrument: sensitivity of blast identification in peripheral blood

Previous reports evaluating the clinical usefulness of the three population differential have examined various diseases. We studied the sensitivity of the Coulter automated differential in identifying blast cells in peripheral blood samples.
Limited value of AgNOR enumeration in assessment of thyroid neoplasms.
E R Nairn, J Crocker and J McGovern

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