

A CASE OF LEUKAEMIA SHOWING MIXED MYELOID-LYMPHOID CHARACTERISTICS AND AN UNUSUAL CHROMOSOME PATTERN

A. S. TODD, SHEILA M. WOOD, JANET ROBERTSON, AND R. A. G. BROWN (*Dundee*) Many haematologists doubt the occurrence of mixed leukaemia since earlier case reports lack the precise data possible with modern haematological methods. In a few instances, however, it is difficult to deny the possibility of mixed leukaemia. In this report we present the clinical, haematological, cytogenetic, and necropsy findings in such a case.

The patient was a woman of 65 years. From the beginning her blood and bone marrow showed leukaemic cells of both lymphoid and myeloid series. Cytological studies showed an abnormal extra chromatin mass in the early myeloid cells. Cytogenetic studies showed the loss of a group E (17 or 18) chromosome in presumed myeloid cells. The same cells showed multiple minute paired chromatin bodies. Hitherto cytological and cytogenic abnormalities of this type have been reported only in malignant tumours of children and in a bronchial carcinoma.

The patient also showed bilateral ureteric duplication, one of the multiple abnormalities associated with deletion of a group E chromosome. In this case, however, the somatic karyotype was normal female as judged by culture of skin and lymphocytes.

The probability of both types of leukaemia occurring together in a patient of this age and sex was calculated from leukaemia mortality tables and was found to be 50 to 60,000 times less than the probability of either type of leukaemia occurring alone. Nevertheless it seems very likely that the case is one of true mixed leukaemia.

RECURRENT FAMILIAL INFLAMMATORY FIBROID POLYPS OF THE SMALL INTESTINE

D. SPENCER (*Exeter*) Two cases, mother and daughter, are discussed. The daughter has suffered three episodes of ileo-ileal intussusception in five years. On each occasion a bowel resection was necessary to remove a polypoid tumour. The mother had a similar tumour causing an intussusception removed in 1967.

In each case the histopathology of the tumours was characteristic of inflammatory fibroid polyps, namely, an ulcerated surface, a loose oedematous fibroblastic stroma, and a uniform eosinophil infiltrate. These changes were confined to the submucosa, the underlying muscle and serosa being normal, clearly differentiating the polyps from eosinophilic granuloma of the small bowel which is diffuse, involving the full thickness of the bowel wall.

The histogenesis of the lesion is uncertain, many authors accepting an inflammatory theory first propounded by Helwig and Ranier (1953). Goldman and Friedman (1967) suggested that they were neurogenic tumours and Stout (1949) that they were haemangiopericytomatous.

Subsequently the mother had three small polyps (two gastric, one ileal) removed, which were basically the same as the larger polyps, but without ulceration, odema, or eosinophils.

Therefore in our opinion the inflammatory changes are secondary to ulceration, rather than the primary lesion. The appearances of the smaller polyps are either hamartomas or true neoplasms, of the latter the most likely, histologically, and in view of the multifocal and familial tendency are neurofibromata.

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A CYTOLOGICAL METHOD FOR ASSESSING THE TOPOGRAPHY OF NEOPLASTIC CHANGE IN THE ENDOCERVICAL CANAL

D. M. D. EVANS (*Cardiff*) When a membrane such as a nucleopore filter (GEC) is applied to the ectocervix, cells from the cervical surface adhere to it; microscopical examination of the stained membrane provides a method for assessing the topography of a carcinoma *in situ* of the ectocervix (Evans, 1967; Evans, McCormack, Sanerkin, Ponsford, and Jones, 1969).

Membrane cytology has now been developed for assessing the extent of neoplastic change in the endocervical canal. A narrow cylinder of membrane is introduced into the endocervical canal by means of the Tenovus endocervical probe (Evans, 1969). This has a retractable cover to protect it from cell contamination during its introduction and removal. Withdrawal of the retractable cover brings the membrane into close contact with the endocervical canal lining and the surface cells adhere to it. Before allowing the preparation to dry it is sprayed with aerosol fixative. It may be conveniently transported to the laboratory in a plastic bag while still on the probe. It is then carefully removed and processed, the Papanicolaou-stained membrane being mounted on a slide like a histological specimen. Microscopic examination reveals the distribution of carcinoma cells over the impression area. By marking the position of carcinoma cell clusters by ink dots on the coverslip the extent of the lesion can be estimated. Correlation of the endocervical topographical cytology with the histological localization of the carcinoma *in situ* as revealed by the subsequent cone biopsy is being undertaken. The results are encouraging.

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TELEVISION SCANNING OF CERVICAL SMEARS: THE QUANTIMET

O. A. N. HUSAIN (*St Mary Abbots Hospital, London*) This image plane scanner, converted from its use in metalurgy, has been shown to be able to register the large, darkly stained nuclei of malignant exudates and scrape smears. Operating by means of a single spot scan with line memory, it is being used to test the hypothesis that malignant cervical scrape and irrigation smears contain enough of these large hyperchromatic malignant nuclei to provide a means of alerting the cytotechnician.