

Initial results suggest that aggregation assessment methods based on changes in single cell or total particle counts may give misleading results under certain conditions. Using this technique, we have found that the extent of prior trypsinization has a critical effect on the subsequent kinetics of

fibroblasts. Preliminary results with polyoma transformed fibroblasts show that initial cell suspensions contain a much higher proportion of single cells and form fewer and smaller aggregates than normal cells.

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CLUSTERING IN ACUTE CHILDHOOD LEUKAEMIA IN DUBLIN. J. J. FENNELLY, J. BELL and A. McBRIDE, Temple Street Children's Hospital and Our Lady's Hospital for Sick Children, Dublin.

In a population of 80,000 in a Dublin area, 13 cases of acute childhood leukaemia occurred in a 3-year period. In a comparable Dublin area of similar population 2 cases occurred in the same period of time. Five of the 13 children lived within 500 yards of one another and of these 5, 3 were diagnosed within a space of 10 weeks. The predominant type of leukaemia was lymphoblastic. The father of one child with acute myeloid leukaemia developed acute leukaemia within 6 months of his son—both died within 6 months of one another. Screening tests on the 5 surviving family members showed a significant increase in herpes simplex virus titres. The expected instance of this disease is just less than 3 per 100,000 per year. Our finding of 21 cases per 100,000 per year is statistically significant.

ORAL AND PHARYNGEAL CANCERS IN TEXTILE WORKERS. E. Moss and W. R. LEE, Department of Occupational Health, University of Manchester.

There was a highly significant excess (77%) of deaths in 1959-63 from oral and pharyngeal cancers in male textile workers compared with the male population of England and Wales. The excess occurred in tongue, mouth and pharynx.

Fibre preparers (mostly very dusty jobs) had a highly significant excess of 330%, weavers and knitters a deficit of 32%, spinners and winders an excess of 32% and bleachers, dyers and finishers an excess of 85%. Of 19 fibre preparers, 18 had worked with wool and only one with cotton.

Occupational surveys of oral and pharyngeal cancer patients and age-matched controls

at Christie Hospital in Manchester and Cookridge Hospital in Leeds are now covering the two main textile regions of England. A significant excess of textile workers has been found in 57 female oral cancer patients in the N.W. region where cotton predominates.

MALIGNANCY IN THE LARGE BOWEL, THE INTER-RELATIONS OF SEX, AGE AND SUB-SITES. J. POWELL, Regional Cancer Registry, Queen Elizabeth Medical Centre, Birmingham.

A total of 23,000 malignant tumours of the large bowel were registered in the Birmingham Region during the period 1960-71. The detailed classification used enabled sex and age specific incidence rates to be calculated for each sub-site.

Comparisons of these rates indicate a surprising similarity between the sexes in the proximal bowel, a change in the sigmoid and the well known excess of males increasing in successive segments of the distal bowel. Within the colon, the sub-site incidence shows some interesting contrasts. The ascending, transverse and descending colon have virtually identical rates despite their differences in length and surface area. On the other hand, the caecum, hepatic and splenic flexures have high rates out of proportion to their relatively small size.

It is interesting to speculate on the relation between these factors and current theories on aetiology of the hind gut.

REPAIR PROCESSES AND THE RESPONSE OF DIVIDING AND NON-DIVIDING CELLS TO ALKYLATION. A. R. CRATHORN, Pollards Wood Research Station, Bucks.

It has been suggested that stationary phase cultures of mammalian cells might be better models of *in vivo* situations than