

SHORT REPORTS

Age distribution of cancer of the cervix uteri

The most recent cancer registration data for England and Wales, relating to 1971,¹ show that the peak for invasive carcinoma of the cervix occurs in the age group 50-54 years. Since early diagnosis of this disease affects prognosis, we studied more recent registration data to see whether there has been a trend towards presentation at an earlier age, and whether we need to screen younger women than the 1971 data would suggest.

Material, methods, and results

We used cancer registration data for patients treated from 1975 to 1978 in hospitals in the North-west Thames Region. The number of registrations for invasive carcinoma of the cervix was similar for the four years studied—306 in 1975, 310 in 1976, 281 in 1977, and 278 in 1978. Even though registration is not complete in this region, these annual figures can be considered random samples since any bias in the completeness of registration is a function not of the patient's age but of the efficiency of the hospital's cancer registry.

The age distribution of the patients is similar for the individual years 1975-8, and the combined data on 1175 registrations are compared in the table with the data for England and Wales in 1971. The basis of comparison is the percentage of the total registrations in each age group—in this instance age-specific rates are not appropriate since many patients with cancer treated in the North-west Thames Region do not live in the region. Indeed, the extent to which patients move across some regional boundaries for treatment is not always realised, with the result that statistics based on region of residence are sometimes assumed incorrectly to be accurate statistics on region of treatment.

When compared with the 1971 national data, the North-west Thames regional figures show a trend towards an increased proportion of registrations in the 20-29 and 30-39 age groups and a corresponding reduced proportion in the 40-49 and 50-59 age groups. This is most noticeable for invasive cancer, but there is a similar trend for carcinoma in situ. Of the regional registrations for carcinoma in situ, 25% were in the age group 28-31 years and only 12% at 24-27 and 18% at 32-35 years.

Comment

The age distribution of a given cancer may be the result of a complex interaction of factors and a definite explanation of empirical observations cannot always be given. One factor, however, that could give rise to the different distributions seen in the table would be a significantly younger female population in the North-west Thames Region than in the country as a whole. Nationally, women in their 20s, 30s, 40s, and 50s formed 13.7%, 11.9%, 11.1%, and 11.9% of the total female population in 1975-7 (the figures were averaged over the three years); for 1971 the corresponding percentages are 13.8%, 11.1%, 12.1%, and 12.0%. The North-west Thames age distribution for the 20s, 30s, 40s, and 50s, also averaged over 1975-7, is 15.1%, 13.0%, 11.5%, and 11.9%. These slightly higher percentages of women in their 20s and 30s in the North-west Thames Region—less than 2%—are unlikely to account for the differences seen in the table. Furthermore, the female age distribution for the other three

Registrations for carcinoma of the cervix uteri by age group for England and Wales and for the North-west Thames Region

Age group	Percentage of registrations for carcinoma of cervix			
	Invasive carcinoma (ICD No 180)		Carcinoma in situ (ICD No 234)	
	England and Wales 1971	N W Thames Region 1975-8	England and Wales 1971	N W Thames Region 1975-8
10-19	0	0.2	0.6	0
20-29	3.1	13.5	21.6	28.2
30-39	8.8	21.6	35.4	42.9
40-49	22.7	13.8	28.6	19.5
50-59	28.7	19.2	10.3	6.1
60-69	19.8	17.4	2.6	2.4
70-79	12.7	10.0	0.7	0.9
80-99	4.3	4.3	0.1	0
Total No of registrations	4090	1175	2214	574

Thames regions (NE, SW, and SE), where most of the North-west Thames extraregional patients live, does not appreciably depart from the national pattern. Factors that might have some influence on the age distribution of the patients are the possible improvement in diagnosis due to cervical cytology screening, the possibility that first coitus is occurring at earlier ages, and referral policies that might result in the treatment of more of the younger women in this region. But to explain this age trend calls for more data than are available at present, and we wonder whether the same pattern can be seen in data from other regions.

We should like to thank Miss E Kippen of the North-west Thames Cancer Registry and Dr Y Hollis for much helpful assistance with this study.

¹ Office of Population Censuses and Surveys. *Cancer statistics: registrations. Cases of diagnosed cancer registered in England and Wales, 1971. Series MB1 No 1. London: HMSO, 1979.*

(Accepted 18 October 1979)

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Hypoplastic anaemia associated with legionnaires' disease

Legionnaires' disease is a recently described condition, commonly presenting as acute pneumonia.¹ Other features include gastrointestinal upsets and bleeding, acute renal failure, thrombocytopenia,² and various neurological manifestations. We describe here a patient in whom legionnaires' disease was associated with hypoplastic anaemia.

Case report

A 65-year-old toolmaker was admitted on 5 October 1978 with one week's history of breathlessness, dry cough, general weakness, and poor appetite. He had no significant medical history, did not smoke, and had not been abroad. He had received co-trimoxazole and paracetamol for five days. On admission he was confused, his temperature was 38°C, pulse 110/min, and blood pressure 120/70 mm Hg. There was clinical evidence of consolidation in the left lung. His haemoglobin concentration (Hb) was 8.5 g/dl; white cell count (WCC) $2.1 \times 10^9/l$, neutrophils 87%, lymphocytes 13%, platelets $101 \times 10^9/l$; and ESR 132 mm in 1 h. Urea and serum electrolyte concentrations were normal. A chest radiograph showed woolly shadowing in the left upper lobe.

Treatment was started with parenteral ampicillin and cloxacillin. His condition remained unchanged and on the 12th day of admission he was still confused and febrile. A chest radiograph showed persisting consolidation of the left lung. Hb was 7.6 g/dl, WCC $4.3 \times 10^9/l$, and ESR 145 mm in 1 h. Legionnaires' disease was suspected and oral erythromycin was started, 1 g every six hours for 48 hours, followed by 0.5 g every six hours for seven days. Within 24 hours his temperature returned to normal and there was considerable clinical improvement. A bone marrow biopsy specimen on the 14th day showed an overall reduction in erythropoiesis and leucopoiesis with normal maturation, an increased number of immature and mature plasma cells, and normal numbers of megakaryocytes. The concentration of total globulin was 41 g/l, that of IgG 15.1 g/l, IgA 2.3 g/l, and IgM 1.05 g/l. Protein electrophoresis showed a normal pattern and urine immunoelectrophoresis showed no Bence Jones protein. Skeletal survey was normal. Serum taken on the 5th, 12th, and 22nd days of admission produced the following antibody titres for legionnaires' disease: 1/64, 1/4096 and 1/2048 respectively. The patient was discharged on 7 November 1978 with an Hb of 9.9 g/dl, WCC $6.6 \times 10^9/l$, and platelets in normal numbers. The reticulocyte count remained low throughout the illness.

During follow-up he remained well and the following results were obtained: December 1978, Hb 13.1 g/dl, WCC $4.7 \times 10^9/l$, platelets in normal numbers; April, Hb 10.1 g/dl, WCC $1.8 \times 10^9/l$, platelets $74 \times 10^9/l$; June, Hb 10.6 g/dl, WCC $2.4 \times 10^9/l$, platelets $137 \times 10^9/l$; August, Hb 11.3 g/dl, WCC $2.7 \times 10^9/l$, platelets $60 \times 10^9/l$. A bone marrow biopsy specimen in April 1979 showed decreased activity in all cell series and a relative increase in the number of immature cells.