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# A COMMUNITY-ORIENTED FAMILIAL CANCER CONSULTATION SERVICE

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A Nation-wide familial cancer consultation service was initiated to achieve three targets: 1. provide a center for advice to the primary care clinicians, 2. provide a preventive-medicine clinic framework for individuals at-risk, 3. to establish a data-base on the magnitude and characteristics of familial cancer in Israel. During the first 6 months about 130 family trees, presented through various sources, were studied. Of these, 56% complied with the definitions of a probable genetic cancer. Most families involved multiple cases with breast (71%) and colon cancer (37%). In 48% families an earlier than expected age of diagnosis of cancer was found. It is believed that such a national service and register will have a major scientific and clinical impact.

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# INFLUENCE OF RADIATIONS ON LARYNGEAL CARCINOMA IN SPAIN

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Cancer of the larynx is one of the most frequent among head and neck cancers in Spain, particularly among males. Tobacco and alcohol are well-established risk factors for this neoplasm. Other risk factors such as previous diseases or exposure to other carcinogens have been less studied. Our report is a case-control study that examines the influence of radiations on the development of laryngeal cancer in Spain.

**PATIENTS AND METHODS:** 85 patients with epidermoid carcinoma of the larynx between 1983 and 1988 and 170 controls selected at random among patients admitted at the same center entered the study. Data were collected from a standardized questionnaire conducted by two trained physicians.

Influence of radiation was studied with regard to the following items: Firstly, oral radiographs. Secondly, radiation therapy of the tonsillar area and thirdly exposure to other sources of radiation. The latter group included scalp radiographs or brain CT due to brain or head and neck tumors and other X-ray explorations for skeletal disorders.

The association between each item and cancer of the larynx was analyzed by calculating the odds ratio (OR). Significance was determined by the Mantel-Haenszel chi-square test. Confidence intervals were calculated by the procedure by Cornfield.

**RESULTS:** 26 cases and 25 controls had been exposed to radiations. Chi-square was 8.90 ( $p=0.0029$ ), OR was 2.56 (confidence limits 1.30-5.01). Among cases, 11 were exposed to oral radiographs, compared to 19 controls. Chi-square for this item was 0.75 ( $p=0.38$ ), OR=1.42 (confidence limit 0.59-3.38). 2 cases and 2 controls were exposed to radiation to cervical lymph nodes. Chi-square: 8.84 ( $p=0.38$ ), OR=2.46 (confidence interval: 0.24-25.10). Exposure to other sources of radiation was present in 13 patients compared to 4 controls. Chi-square was 16.08 ( $p<0.01$ ), Odds ratio = 7.99 (confidence interval: 2.30-30.41). No patients received radiation therapy on tonsillar area.

**CONCLUSIONS:** exposure to sources of radiation such as scalp radiographs and brain CT, as well as radiographs for head and neck skeletal disorders is associated with the development of laryngeal carcinoma in Spain.

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# EPIDEMIOLOGY OF MYELOMA MULTIPLEX IN LOW SILESIA (POLAND)

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Aim of the study was to analyze the incidence of myeloma multiplex in the years 1978-1991 in 3 voivodeships (out of 4) belonging to the Low Silesia region. Two voivodeships show strongly developed industry: Legnica (Lg)-copper mines and manufacturing, and Wałbrzych (Wb)-old coal mines and other industry.<sup>3</sup> Jelenia Góra (JG) is rather a touristic region.

There were 183 cases observed, among them 94 women and 85 men, 131 living in towns and 52 in the country. A crude incidence coefficient per year, per 100 000 inhabitants was for the total population 0.76, similar for men and women. In town population it was 0.78 and in the rural-0.69. Out of the voivodeships the highest coefficient was observed in Lg=1.02, followed by Wb=0.78 and the smallest one was in JG=0.46. The comparison of two subsequent 7-year periods showed that in the second (years 1985-1991) the incidence was twice as high as in the first (1978-1984). Our observations thus indicate a high increase in the incidence of myeloma which might be accounted for by an immune stimulation connected with industrial pollution and are in keeping with the previous ones showing an increase in the incidence of non-Hodgkin lymphoma in the voivodeships with developed industry.

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# NO INCREASED RISK FOR FOETAL NEOPLASMS FROM X-RAY EXAMINATIONS DURING PREGNANCY IN SWEDEN

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Earlier reports when the foetal dose from pelvimetry during pregnancy was approx 20-40 mGy have indicated a between 40 and 100% increased risk for foetal neoplasms secondary to irradiation.

In the present study a population of 25344 pregnant women subjected to an x-ray examination during pregnancy was studied by means of computerized registers. In the group of children born to mothers subjected to X-rays 42 malignancies were found as compared to 41 in the matched control group (relative risk 1.02, 95% confidence interval (C.I.) 0.72-1.40). The distributions of different malignancies were similar in both groups, for instance 15 and 13 leukemias were diagnosed in x-ray and control group respectively. In the subgroup subjected to pelvic x-ray 28 malignancies were found as compared to 24.1 calculated in the control group, relative risk 1.16, C.I. 0.77-1.68.

The present, statistically non significant risk increases of between 2 and 16% are probably consistent with the findings of Stewart and McMahon if the twentyfold dose reduction (from 20-40 mGy to 1-2 mGy) which has taken place between 1950 and 1970 is taken into account. It is notable that, in consistency with other reports, the frequency in Sweden in the 1970s of x-ray examinations during pregnancy was as high as 22% of all pregnancies, higher than the frequencies found in the United States and England 20 years earlier. 33% of the present examinations consist of chest x-rays and 29% are chest x-rays performed during the third trimester. A certain over-utilization of x-ray examinations of pregnant mothers can therefore not be excluded.