

paper. Rs tried to answer many questions. Recommendations were made in most Rs, though none were substantiated.

Conclusions: Systematic Rs are needed to reduce potential bias.

576

ORAL

Determination of DNA damage in uranium miners

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Purpose: In this presentation we present the data obtained in former German uranium miners (Wismut AG) who were exposed during the years 1945 to 1955 to excessive doses of radon decay products. Furthermore they had an elevated continuous radiation exposure between these wild years and today due to the fact that radioactive lead was deposited in the skeletal bones. We analysed whether it is possible to demonstrate today's evidence of this chronic low level radiation exposure in leukocytes seen as effects on the DNA level.

Methods: The alkaline comet assay was used to determine the initial DNA damage as well as the DNA repair capacity of the cells as a parameter of the functional status. For this purpose blood cells were subjected to an *in vitro* irradiation of 100 cGy and DNA damage was determined directly and at different time intervals after *in vitro* irradiation. Patients: 106 former uranium miners were compared to an appropriate control group.

Results: There was no statistically significant difference of DNA damage and DNA repair capacity between the radiation exposed uranium miners and the non-exposed control population.

Conclusions: Our results indicate that the level of chronic radiation exposure during the past 50 years did not result in a significant DNA damage or in an impaired DNA repair capacity of the leukocytes and their progenitors.

577

POSTER

Cancer publication trends, 1966–1995

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Purpose: Description of publication trends on cancer in the medical literature.

Methods: A Medline™ subject-heading and keyword search was used to count articles on cancer and related topics from 1966 through 1995. USA Cancer Statistics were used to correlate publication numbers to cancer incidences.

Results: (1) Between 1966 and 1995, the number of publications on cancer per year tripled from 16,398 to 47,572. (2) The contribution of publications per cancer site showed little changes in 30 years, e.g. on childhood cancer from 18% to 15%, on leukaemia from 8% to 9%, on breast cancer from 5% to 9%, and on prostate cancer from 1% to 3%. (3) In 1995, the number of cancer articles per new USA cancer case was 28.6 for all neoplasms, ranging between 193.0 for prostate and 0.9 for childhood cancer. (4) The contribution of publications by treatment modality remained stable for radiotherapy and surgical oncology papers at 5% and 11%, and showed an increase for chemotherapy papers from 26% in 1966 to 37% in 1974, remaining stable thereafter. (5) For 1992–1995, most radiotherapy papers originated from the USA; Sweden, The Netherlands and Canada had most publications per number of citizens.

Conclusion: Despite a tripled cancer research output since 1966, there is a major and consistent misbalance in research topics, both with regards to tumour site and treatment modality. Therefore, research objectives have to be redefined.

578

POSTER

Factors encouraging or discouraging women undergo clinical breast examination

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Purpose: To evaluate the factors influencing female immigrants from the former USSR & veteran Israeli women to undergo breast clinical examination (CBE) in order to develop an efficient intervention program.

Study Population: Immigrants from the former USSR living in Israel 5 years or less & Israeli women born in Israel or living there for at least 20 years. A total of 196 women were sampled. Excluded: 4 due to breast

cancer & 10 who could not be traced. Refusal to participate was 19%, mainly for fear and reluctance to discuss cancer. The final samples were 97 immigrants & 89 veteran Israelis.

Methods: Cross sectional study using a self report questionnaire based on the Health Belief Model (HBM). Data were processed in three stages. 1st: the differences between the two groups were described using *t* test or χ^2 . 2nd: the HBM factors were examined by Principal Component Analysis. 3rd: logistic regression on CBE with demographic variables, HBM components & group assignment in the model.

Results: Greater use of CBE was associated with older age and higher education level and less barriers involving timing and attending the service. No difference between immigrants & veteran women was found.

Conclusions: Intervention should take into consideration fears & suspicious related to cancer, barriers of the service, age and education level of women.

579

POSTER

Knowledge and beliefs about cancer prevention in a Northeast Italian population

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Purpose: We made an self administered questionnaire to explore the people knowledge and beliefs about cancer prevention modalities.

Methods: We distributed this questionnaire to people coming in several units of hospitals in Italy

Results: Until now we collected 2480 questionnaires assessing 73% females and 27% males. In the sample 76% of people aged from 20 to 59 ys, up 70% had a medium-high educational level, 35% were house-working, 21% were smokers, 45% drank wine and 51% had almost one relative affected by a neoplastic disease. The information about prevention modalities was assessed as good in 40% questionnaires but the prevention was really performed in low percentage: in the last five years 81% never performed occult blood test, 87% rectoscopy, 65% oral cavity exploration; among the 49% of the women performing breast self-examination, only 24% do it monthly. In the last five years 46% of the women never underwent mammography and 26% PAP-test. The main obstacle in performing cancer prevention examinations was showed in the indolence by 28%, in the fear by 21%, in the economic charges by 8% and in the lack of quick benefit by 5%. About 47% of the people think that the health authorities advertise the prevention little and 81% that the main part in the education for preventing cancer would be represented by health authorities (39% by school).

Conclusions: More enterprise is need by health authorities for increasing the cancer prevention.

580

POSTER

Physicians' attitudes toward rectal cancer: Results of a French survey

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Purpose: Our survey is focused on therapeutic attitudes face to rectal cancer, related to specialities and physicians' very factors influencing therapeutic decision.

Methods: In spring 1996, a questionnaire was sent to a sample of 720 french physicians, stratified in 4 specialities: gastroenterology, digestive surgery, radiotherapy, medical oncology. This questionnaire included 3 clinical cases of rectal cancer at different stage, a T3N0 tumor, an advanced cancer with recto-vaginal fistula and a relapsed rectal cancer.

Results: 352/622 exploitable answers were returned (57%). The decision modality was pluridisciplinary (versus not) for 52% of physicians for the 1st case, 64% for the 2nd case and 61% for the 3rd case. This decision modality was significantly different according to speciality, type of practice, public or private practice, and proximity of radiotherapy department. Two main attitudes emerged for the 1st clinical case: an exclusive radiotherapy-surgery (RT-SU) (44%) (consensual choice) and a RT-SU with optional or systematic chemotherapy (CT) (51%). This latter choice appeared to be closely dependent on medical speciality and background. For the second clinical case, 70% of physicians have chosen an association RT-SU-CT while 18% have chosen a RT-SU and 4% an exclusive medical treatment. For the 3rd one, 63% have recommended a RT-SU-CT, 18% a RT-SU and 13% an exclusive RT-CT.

Conclusion: The decision modality is mainly related to the place of work, when the therapeutic attitude depend on personal characteristics. Until 1990, multiple therapeutic options for rectal cancer were performed in France. Now, the argumentation is rather directed on the choice of CT after the standard RT-SU treatment. Results from the ongoing controlled studies will help enlightening the right use of CT. Yet, intention toward hypothetics cases and real practice are different; a practice survey should probably show more disparity in treatments.

581

POSTER

Time trends in survival between 1978-84 and 1985-89: Cracow cancer registry experience

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The data on survival come from the population based Cracow Cancer Registry which was established 30 years ago – in 1965. The first Polish survival study using materials from our Registry was published in 1977. Since 1978 the collected information have been computerised, which was of special importance for usage in analysis of a computer package for survival studies prepared by T. Hakulinen and all. All cancer patients are followed-up through death certificates obtained from the Local Statistical Office.

The Cracow Cancer Registry was the only Polish Registry participating in Eurocare-1 study (1978-84). Across the spectrum of cancers our survival rates were among the worst, being significantly lower from European mean for: breast, corpus uteri, colorectal cancer for both sexes and stomach, kidney and leukaemia for males. Comparison of our data from 1985-89 with survival rates 1978-84 revealed significant improvement of survival rates only for breast and corpus uteri cancer. However, even these rates were still below European mean (1978-84). The reason for this discrepancy seems to be the fact, that Cracow patients still come very frequently with later-stage disease and adequate early detection program does not exist.

582

POSTER

Changes in the incidence and survival rate of cervical cancer in patients under age of 30 years

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Purpose: To analyze clinical data of young patients with cervical cancer in the Dept. of Obst. & Gynecology, University Med. School of Pécs over the past 44 years.

Patients and Methods: Between 1952 and 1995 there were 6202 patients treated with cervical cancer. 210 patients were under age of 30 years. The treatment protocol was the same, regardless of the age of patients, based on the clinical stage of the disease: low dose rate brachytherapy and surgical treatment, or complete radiation therapy-brachytherapy and external beam irradiation.

Results: The incidence of cervical cancer of all patients has not been changed, however among young patients there was a gradual increase in the incidence from 1975, which may be explained by the accumulated occurrence of predisposing risk factors. In stage I, the five-year survival rate is the same between the two age groups/below and above 30 years/but in advanced cancer/stage II, III, IV/the 5-year survival rate of young patients is much worse.

Conclusion: The increased number of young patients with cervical cancer may be explained by the accumulation of risk factors and environmental hazard. The poor prognosis is probably due to the fact, that tumors in young patients show more proliferative tendency, and the ratio of anaplastic squamous cell or adenocarcinoma is higher.

583

POSTER

Types of diet and breast cancer risk among native and immigrant females in upper Silesia region, Poland

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Purpose: Evaluate of the risk relative (RR) incidence of breast cancer among natives and immigrant women taking into account the 3 types of diet.

Methods and Materials: The 328 cases were divided into two groups: 1. Native Upper Silesians (214 i.e. 65.2% of the total) – a stationary population

of women who had been born and lived all their lives within the limits of Upper Silesia. 2. Immigrants – women who had moved to Upper Silesia from various regions of Poland – 114 cases (34.8% of the total). The 585 controls were divided as follows: 405 (69.2%) – natives and 180 (30.8%) – controls.

The types of diet were determined as follow: "A" – (all descriptions very short) – a rare consumption of fried meat and large amounts of raw vegetables, "B" – all medium, and "C" – frequent consumption of fried meat and animal fats and a low (or even lack) raw vegetables.

Conclusion: RR is very high for native women at "C" diet (RR = 13.3, $p < 0.000001$) to reference level-diet "A" (RR = 1.0). Most likely significant changes in diet of the immigrant women occurring in the pre- and post-migration periods are cause of the fact that the risk of breast cancer is less marked.

584

POSTER

Evidence-based medicine and the cochrane collaboration: A new approach to medical decision-making in cancer therapy

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Background: Evidence-Based Medicine (EBM) is an approach to combine individual clinical expertise with the best external evidence available from clinical research. Key components are systematic reviews involving the systematic collection, synthesis and application of scientific results. The international Cochrane Collaboration (CC) organizes the identification of all potential relevant reports of clinical trials for prepanning, publishing and updating systematic reviews. Actually 14 Cochrane Centers offer logistic and methodical support for 44 review groups who finished 159 systematic reviews in various medical fields up to now. For cancer the Cochrane Cancer Network started to coordinate the work of the review groups. Systematic reviews in Cochrane format are not yet available for the cancer field.

Objective: We present and discuss the concept of EBM and the work of the CC with special regards to the structure and activities of the Cochrane Cancer Network.

Conclusion: The systematic review process guided by the Cochrane Cancer Network is going to improve the scientific input for guidelines and medical decision-making and will therefore help to improve the quality of cancer therapy.

585

POSTER

Influence of ecologic factors on cancer incidence rates in some regions of Kyrgyzstan

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Located in Central Asia, the Kyrgyz Republic occupies area of nearly 200,000 sq.km, 90% of which are mountains. Kyrgyzstan is regarded as a country with a relatively low cancer incidence rate, which has been declined even more for the last 5 years and in 1996 was 90.7 per 100,000. At the same time, some ecologically unfavorable regions in the republic, where there are radioactive tailings deposits with uranium waste products, present a certain danger for health of people. Studies of the morbidity in these regions have become possible only after the disintegration of the USSR. Between 1995 and 1996 we examined more than 6,000 people in 3 such regions: Meili-Su, Kara-Balta and Kadji-Sai. The analysis of medical survey showed that general and cancer morbidity in all these towns significantly exceeds the average rates for the republic and those for the neighboring regions.

586

POSTER

Cyclic patterns of incidence variations for breast cancer: A hypothesis for heliophysical imprinting

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Purpose: The aim was both to confirm cyclicity in breast cancer (BC) rates and present a hypothesis for different risk for BC patients related to solar activity in their year of birth. Cyclicity in breast cancer and other cancers across different countries (Bulgaria, UK, USA) has been revealed [Dimitrov 1995; 1997, unpubl. results]. 'Heliogeophysical imprinting', i.e. later consequences due to influences during early ontogenesis [Kaznacheev e.a. 1985], has also been reported. For instance, most women with early