Symposia

1202

Screening for prostate cancer: Preliminary evidence from randomized studies and epidemiological data

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Prostate cancer can be diagnosed early with the aid of prostate-specific antigen (PSA) and digital rectal examination (DRE). This diagnostic algorithm applied to the general population will produce lead time in the range of 6–10 years. Demonstration projects and randomized studies have shown the feasibility of this approach. The question, however, whether life is prolonged by early, detection and early treatment remains unanswered.

The "European Randomized Study of Screening for Prostate Cancer" (ERSPC) aims at showing or excluding a mortality reduction for those screened and treated with respect to those managed according to regional routines. More than 150.000 men have been recruited, the study runs in its fifth year. Preliminary data show a significant stage shift in the screened population with respect to controls and to historic controls. In the Rotterdam section the prevalence of metastatic disease is only 0.6% as opposed to about 25% in the cancer registry of neighbouring Amsterdam. Data relating to these intermediate endpoints will be presented. A final evaluation of the international study, in which centers in Finland, Sweden, The Netherlands, Belgium, Italy, Spain and Portugal participate, will only be known around the year of 2008.

1203

Is colorectal cancer screening worthwile?

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Colorectal cancer screening has been widely researched over the past twenty years. Randomised trials of faecal occult blood testing (FOBT) published in the past half decade offer conclusive evidence of an effect on coloretal cancer mortality. Studies continue to examine the use of flexible endoscopy in population screening. Identification and colonoscopic surveillance of high risk families is widely accepted as an effective exercise.

FOBT applied biennially decreased mortality by around 20% in the three trials reported recently. Shortcomings include poor sensitivity and specificity (50% of cancers missed, 90% of positive tests not due to cancer), and low compliance. Immunological detection of human haemoglobin, and stool tests for gene mutations are not yet useable alternatives. Colonoscopy as the subsequent diagnostic test after a positive FOBT carries significant risks if not delivered as a high quality service.

Once-only flexible sigmoidoscopy (FS) around age 60 may be a realistic alternative; the UK multicentre RCT involving 400,000 people has recently finished recruiting patients; incidence and mortality data will not be available for several years. Unlike FOBT, FS is likely to have a substantial effect on incidence as well as mortality.

In high risk families, interventions using colonoscopic polypectomy and prophylactic surgery substantially diminish cancer risk. At-risk families may be difficult to identify and hence to offer appropriate screening programmes. Molecular identification will become important in tke future.

1204

How do we know that breast cancer screening is effective?

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There is an international agreement that breast cancer screening is effective, and several health ministries have taken a decision to implement screening in their health care activities. The understanding of the effectiveness of screening is based on knowledge about natural history of breast cancer, where detection in an early phase of the disease is correlated to better survival. Furthermore, there exists a method to detect breast cancer in an early stage, i.e., mammography. Randomised trials have also shown a decreased mortality on approximately 30% in screened groups in comparison to control groups. Methods for evaluating the effect, but also for controlling the quality of a routine screening programme in a service setting, are mainly indirect and dependent on surrogate measures. Such measures are e.g., participation rate, recall rate, positive predictive value of biopsy, cancer detection rate, rate of small cancers and cancer in situ, and rate of interval cancers. The effect on breast cancer mortality by population based routine screening is related to the quality of the radiological examination. The effect is also related to the participation rate (or coverage of target population in a decentralised setting) and to the quality of further assessment and treatment of women with abnormal findings. To date, there are no recommended epidemiological methods on how to evaluate a routine screening programme in terms of mortality reduction. Estimation of the impact of screening on mortality could be made by comparing mortality rates in the screened population with e.g., data from a reference period (historical data), rates in a reference population, expected and prognosticated mortality, excess mortality, or time trends. Different papers focusing on the evaluation of the effect of routine screening in a service setting as well as epidemiological and methodological problems will be discussed.

1205

Cervical cancer: New approaches and mass screening

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Depending on the technology used, the automation in cervical cytology in US is supposed to improve the sensitivity of Pap-testing between 11% and 15%; by consequence life expectancy increase by 5 hours to 1.6 days per woman screened and the cost per year of life saved rose from $7777 with quadriennial screening to 166.000 with annual screening.

The greatest obstacle to cervical cancer prevention remains the failure to be tested, not the testing methodology. These technological improvements can be used as a part o less frequent screening but if their cost discourages the participation in screening programmes, their will not reduce the occurrence of invasive cervical cancer.

Strategies aimed at increasing the number of women screened, particularly among those who have not had a Pap smear, are likely to be much cost effective than computer-assisted rescreening at reducing cervical cancer morbidity and mortality.

HPV testing potentially may be very useful for primary screening or secondary triage of patients with certain lesions. Data on the effectiveness of these approaches as well as clear cost benefit analysis are expected from several large trials.

Antibodies against CdC6 and Mcm5 stain abnormal cells in cervical smears with high sensitivity and specificity raising the possibility of automating the cervical screening test.

Questions concerning dosage, adjuvants, boosters of a vaccination programmes, targeting HPV 16, 18, 31, 45 are under consideration.

Vaccination of adolescents has been suggested for preventing HPV infection. The eventual introduction of HPV vaccination may vary risk profiles in women of different ages: some decades would be needed before eradicating

1206

Multidisciplinary approaches in head and neck cancer – Where do we go from here?

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For a long time, either radical surgery, S, (most often with postop irradiation, XRT) or definitive XRT, (with S in reserve for salvage) were the two preferred treatments for advanced but resactable larynx and hypopharynx SCC. No randomised trial has compared both approaches. The appearance of active chemotherapy, CT, and the frequent correlation between CT and XRT