

Plenary Lecture

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Implementation of new biological knowledge into cancer management

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Background: In the last few years, progress in molecular biology has improved our understanding of the biology of cancers and has consequently influenced our management of these diseases in terms of prevention, individualization of treatment, and supportive measures. Progress in molecular genetics has identified subgroups of people at high risk for developing cancer. For example, women with BRCA_{1,2} gene mutations are at high risk for breast and ovarian cancers, leading clinicians to propose prophylactic oophorectomy and mastectomy and to accelerate the search for chemopreventive agents.

Recent developments: Analysis of the genetic profiles of tumors through microarray technology is emerging as a powerful prognostic tool that, in the near future, might be used to individualize the treatment of cancer patients (e.g., in breast cancers and lymphomas) and as a predictive tool that might facilitate treatment "tailoring".

Developments in molecular biology have also led to the discovery of specific abnormalities in cancer genes responsible for cancer proliferation, invasion and angiogenesis. These abnormalities are currently the target of many new anti-cancer agents called "molecular-targeted therapies". Glivec[®] (anti C-kit) for the treatment of gastrointestinal stromal tumors, and Herceptin[®] (anti HER-2/neu) for the treatment of breast cancer are among these interesting agents.

As a result of the cross-talk observed between cancer cells and their microenvironment via cytokines and growth factors, research has begun to target these signals at the level of cancer cells as well as at the level of normal ones that are under the influence of tumor cells, for example osteoclasts and osteoblasts. The latter has enabled the development of efficient supportive measures (bisphosphonates).

A major challenge to the oncology community is how best to develop these agents in the clinic (e.g., maximum tolerated dose versus biologically active dose; bulky versus residual disease; and so on). Indeed, the last few months have witnessed the failure of some new biologic agents to improve patient outcome in large phase III clinical trials. Another challenge will be to elucidate "resistance mechanisms" of cancer cells exposed to these new highly specific target therapies.

Finally, molecular biology techniques enable the detection of a limited number of cancer cells in lymph nodes, blood and bone marrow. The clinical significance of these cells is under investigation.

Conclusions: We are very fortunate to witness the transition from "empirical oncology" to "molecular oncology". For oncology nurses as well as for oncologists, this transition will bring a number of challenges, including the need to cope with a rapidly expanding "targeted" drug list.

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ORAL

The treatment decision-making preferences of people with colorectal cancer

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Background: Although policy documents in the UK encourage patient participation in treatment decision making it is not clear if patients diagnosed with colorectal cancer are comfortable with the role of active decision maker. The preferences that patients have for participating in treatment decision-making and the reasons that underpin those preferences are

poorly understood. This study explores decision making preferences and develops a measurement instrument for determining patients preferences for engaging in the decision making process.

Methods: A two-stage study was undertaken using qualitative and quantitative approaches.

Stage 1 investigated the views of patients (n=41) and health professionals (n=35) on patient involvement in treatment decision-making using semi-structured interviews.

Stage 2 involved the development of an attitude rating scale that measured patient preferences for involvement in decision-making, using a cross sectional survey approach (n=375).

Results: Stage 1. Availability of treatment choices was dependent on stage of disease. Patients and health professionals perceived that choices were limited at initial primary surgery but were available in the adjuvant stages of treatment. Anxieties were raised for patients when asked to make treatment choices, preferring that doctors made decisions on their behalf. Trust in health care professionals based on medical expertise was a pertinent issue. Participation was a difficult concept for patients to comprehend and a preference for involvement' rather than participation' was expressed.