1. The genetic studies have identified subgroups at high risk of developing the disease creating the premises for programs of targeted chemoprevention.
2. Endocrine modulators and other active principles like retinoids have shown to be effective in reducing breast cancer incidence in specific subgroups of patients.
3. New developments in imaging procedures have made possible the detection of very early carcinomas greatly increasing the curability rates.
4. The analysis of the genetic profile of the cancer cells will be fundamental for prognostic evaluation and to assess the likelihood of response to medical treatments.
5. More and more non palpable tumours will be identified and destructed. Radio guided techniques to remove those occult lesions are now available.
6. Mastectomy is abandoned in favor of breast conservative treatments.
7. Thank to the Sentinel Node Biopsy procedure, the dissection of regional lymph nodes will be limited to patients with positive nodes.
8. Radiotherapy fields are being progressively reduced and partial breast irradiation is becoming a realistic perspective for the future.
9. Systemic treatments will be decided mainly according to the prediction of response to specific endocrine or chemical drugs.
10. New types of drugs built to meet specific biomolecular targets, expressed by mutated genes, are appearing as a result of the postgenomic research.
11. The cancer “stem cells” concept will open new roads in treatment.
12. TNM classification is being deeply modified.

All these new facts are at the root of dramatic changes in paradigms for prevention, detection and treatment of breast cancer. The main shift refers to the progressive awareness of the importance of quality of life, which is changing the traditional approach based on the “maximum tolerated treatment” to the “minimum effective treatment”. This new trend has led to limited surgery (instead of mutilating operations), more targeted radiotherapy (instead of large field involving the regional nodes), less aggressive chemotherapy (instead of the high dose approach). This new trend will motivate more women to participate in early detection programmes, which in turn will lead to the reduction of mortality rates.

Scientific Symposium (Mon, 26 Sep, 14:45−16:45) **Contributors to Better Survival in Colorectal Cancer**

317 INVITED

The Contribution of Evidence Based Guidelines and Compliance to Colon Cancer Cancer Survival

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Evidence based guidelines have played an ever increasing role in the practice of medicine over the last thirty years. National guidance for the management of colorectal cancer (either comprehensive guidance for all aspects of the condition from diagnosis to terminal care, or specific to a particular problem such as liver limited metastatic disease) has existed in many countries for the last fifteen or so years. But has the provision of such guidance led to any improvement in outcomes?

Overall across the breadth of medicine, the evidence suggests that the introduction of guidance does lead to improvement in outcome in over ninety per cent of cases [1]. However, the methodology and degree of rigor applied to the methodology in the creation and introduction of such guidelines is very variable, and there are many models of methodology with which guidelines can be constructed. Furthermore the size of outcome improvement following the introduction of guidelines varies widely.

Another problem in measuring the impact of the implementation of guidelines in oncology is the coincidence of the guideline publication with a simultaneous major breakthrough in disease detection or therapy. Furthermore, implementation and audit of outcomes of guideline recommendations may vary considerably at the local level.

The presentation will review the impact of a number of major national guidelines for the management of colon cancer from the author’s perspective as Chair the National Institute of Clinical Excellence’s colorectal cancer guideline development group.

References

[1] Grimshaw JA and Russell IT. Lancet 1993; 342: 1317−22

318 INVITED

Better Survival due to Improved Staging in Colon Cancer. the Sentinel Node Reappraised

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Background: The value of the sentinel lymph node (SLN) procedure in colon cancer patients remains a matter of great debate. The objective of this systematic review is to summarize the potential advantages of SLN procedure in colon cancer patients particularly focussing on the identification rate and sensitivity of the SLN procedure as well as on upstaging and on the possible impact on outcome.

Methods: A systematic review of the literature was performed since the first use of the SLN procedure in colon cancer patient in 1997 up to now. This review therefore represents a synthesis of the most relevant data regarding SLN procedure in colon cancer patients including data from our Swiss multicenter study.

Results: There are only a few prospective, multicenter studies − including one randomized controlled trial − in the literature. In the hand of experienced surgical oncologists, the SLN identification rate is close to 100% and the sensitivity around 85%. However, these rates are lower early in the learning curve. There is no universally accepted standardization of the SLN procedure (e.g., in vivo vs. ex vivo tracer injection; type of tracer used, amount of tracer injected, defined learning curve for the procedure). Due to in-depth analysis of the SLN (ultrastaging), small nodal tumour infiltrates are found in a relevant proportion of patients initially classified as node negative; upstaging rates around 15% are published in the literature.

Conclusions: The SLN procedure for colon cancer has good identification and accuracy rates, which further improve with increasing experience. Patients remaining node negative after ultrastaging of the SLN represent a subgroup of colon cancer patients with excellent prognosis. Most importantly, the SLN procedure results in an upstaging of 15% of node negative patients. The potential advantage of performing the SLN procedure appears to be particularly important in these patients as they may benefit from adjuvant therapy, which consequently may result in better disease-free and overall survival.

In the future, it is crucial to further explore different strategies to improve either lymph node staging (e.g. by One-Step Nucleic Acid Amplification [OSNA] of lymph nodes) or the SLN procedure in colon cancer patients (e.g. by using an intraoperative near-infrared fluorescence imaging system [FLARE]).

319 INVITED

Neoadjuvant Treatment in Colon Cancer

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With the advent of more active combination chemotherapy (CT) than just single agent FU, resections of unresectable liver metastases (mets) have been reported. Since then disease downstaging has become a relevant endpoint of “conversion therapy”. “Neoadjuvant CT” of resectable mets was also investigated, within the frame of a “perioperative strategy”. In addition to unresectable and resectable mets, “potentially resectable” mets are usually considered a third category, although CT used in this setting should be regarded as conversion therapy. Conversion therapy is most challenging, since it is directed against macroscopic mets with the aim of shrinking them or altering their structure, whereas perioperative therapy is directed against micrometastases. A recent systematic review of 23 neoadjuvant CT trials on resectable colorectal liver mets reported a median RR of 64%, with R0 resection rate of 93%, and median DFS of 21 months. In the only phase III study available, these figures dropped to 43%, 87% and 19 months, respectively. These studies do not allow a conclusion on the optimal neoadjuvant CT for resectable mets, because the phase III investigated FOLFOX CT vs surgery alone, and the other studies are single arm phase II. In nonresectable mets the Tournigand study provide a randomized comparison between FOLFOX and FOLFIRI reporting a higher RR for FOLFOX with corresponding liver mets R0 resection rate of 22% compared to 9% with FOLFIRI. This conversion rate of FOLFOX was confirmed (33% on 43 patients) in a phase II study. In a randomized phase III trial, Falcone et al. demonstrated an increased RR (66% vs 41%) and R0 resection rate (36% vs 12% in patients with liver only mets) for the triplet regimen FOLFOXIRI compared with FOLFIRI. Further increased RR is reported with the addition of monoclonal antibodies to standard CT. At least 4 studies showed consistent improvements in RR (ranging from 59% to 79%) with addition of Cetuximab to CT. In the phase III CRYSTAL trial the rate of R0 liver resection increased from 1.5% with CT only to

4.3% with the addition of Cetuximab. The NO16966 trial, which compared XELOX/FOLFOX with or without Bevacizumab, demonstrated a slight, not statistically significant increase in resection rate with the antibody (17.1% vs 12.6% for patient with liver mets only). These data indicate that either a CT triplet or a doublet plus cetuximab in K-RAS wt tumours are the most efficacious converting regimens.

320 INVITED

The Role of Radiotherapy for Better Survival in Rectal Cancer

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The benefit of preoperative radiotherapy and chemoradiotherapy for rectal cancer has been extensively studied, but data on survival are still equivocal despite a significant reduction in the rate of local recurrence. In earlier meta-analyses (that mostly included randomized trials from the pre-TME – total mesorectal excision − era) preoperative radiotherapy at biologically effective doses $\geqslant$30 Gy reduced the risk of local recurrence and death from rectal cancer; and improved overall and cancer-specific survival compared with surgery alone. However, the magnitude of the benefit for overall survival was relatively small. Likewise, further randomized trials and meta-analyses showed, that preoperative chemoradiotherapy, if compared to conventionally fractionated preoperative radiotherapy alone, significantly increased local control rates, however, no statistically significant differences were observed in disease free and overall survival. Long-term results from the Dutch TME trial, that compared 5×5 Gy plus TME surgery versus TME surgery alone in resectable rectal cancer, confirmed that preoperative short-term radiotherapy reduced 10-year local recurrences by more than 50% relative to surgery alone. For patients with negative circumferential resection margins, radiotherapy also led to an improved cancer-specific survival, however, due to an increase in other causes of death, this did not translate into an overall survival benefit. Clearly, criteria are needed to identify patients most likely to benefit from preoperative radiotherapy or chemoradiotherapy, not only with respect to local control rates, but also for long-term survival.

321 INVITED

Making Non-resectable Colorectal Cancer Resectable

Abstract not received

Scientific Symposium (Mon, 26 Sep, 14:45−16:45) **Nursing Science**

322 INVITED

Patient-Centred Care − Building Capacity for Research and Clinical Care

Abstract not received

323 INVITED

Advanced Cancer Patients as Participants in Their Own Lives − a Qualitative Study of Coping From a Patient Perspective

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Background: Previous research shows that patients with advanced or incurable cancer often express the need for professional help to manage complex issues. At the same time research points to the fact that support from health professionals can be dominated by symptom treatment, and that health professionals often lack knowledge and courage to support patients and their relatives. Thus, the need for health professionals to gain insight into coping in advanced cancer patients is clear, together with the need to create a foundation for the development of specific tools that can figure in the development of basic palliative care. The overall aim was to develop a Grounded Theory with focus on the central characteristics in coping in advanced cancer patients, and which, from a patient perspective, are significant to how patients in interaction with their surroundings manage actual problems and emotions.
Material and Methods: The qualitative interview study included 10 patients aged between 43 and 80, who were interviewed between one and three times. In all, 18 interviews were conducted. The method, "Grounded Theory", as described by Strauss and Corbin, was employed as the analysis strategy.
Results: The results showed how 'Struggling to be a participant in one's own life' emerged as the central tendency, and involved four life conditions: 'Alleviation from life-threatening illness', 'Carry on a normal life', 'Live with powerlessness' and 'Find courage and strength'. Each life condition was characterised by a series of limitations and resources, which made it clear how coping occurred in constant interaction between the patient and their environment. The pattern around the central tendency further involved three processes: 'Prioritising', 'Downplaying' and 'Self-preservation', each of which pointed to coping as a constantly changing and dynamic process.
Conclusions: Based on the results of the study, it can be concluded that coping in advanced cancer patients is centred around maintaining or re-establishing the feeling of being a participant in one's own life. The pattern around the central tendency involved both significant life conditions and processes. Furthermore, it can be concluded that coping cannot be explained only as a person's efforts to adapt to stressful situations. Coping must also be understood as a process where the patient acts with the intention of reassessing their situation and thereby achieving a better connection between their view of the world and the actual situation, which can increase positive feelings in the middle of an otherwise very difficult situation.

324 INVITED

A Controlled Family Navigator Nursed Lead Intervention for Study for Parents of Children Undergoing Allegeneic Hematopoietic Stem Cell Transplantation

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Background: Parents are the primary caregivers of children with life-threatening disease who undergo allogenic haematopoietic stem cell transplantation (HSCT).
Aim: To investigate the effect of an exploratory, multifaceted intervention program on parents who participated in the care of their children undergoing HSCT, specifically the parents' anxiety and depression levels, by comparing a prospective intervention group (N = 25) with two control groups, i.e. 1) a prospective (N = 8), and 2) a retrospective group with parents (N = 46) of children treated over the past 3.5 years. The intervention program was run over nine hours/week and comprised the following components: (a) daily clinical information, emotional and social support with a Family Navigator Nurse (FNN), and the offer of participation in a b) five hour education program, and c) physical activity.
Methods: Quantitative questionnaires (HADS, BASES), semi-structured interviews, participant observation.
Results: The major problem areas that the parents face was: 1. the emotional burden associated with the child's HSCT; 2. the necessary reorganization of family life to accommodate hospitalization with the child; and 3. the economical burden associated with maneuvering within the Danish social welfare system.
Three types of parent care were identified, i.e. expertise oriented; dialogue oriented, and socially challenged parents. The care types reflect the parents approach to their child's care and the influence of each approach on collaboration and communication between the child, the parents and the staff.
The HADS and BASES questionnaires uncover, the progression of the parents' levels of anxiety and depression symptoms in relation to the child's HSCT process and the effect of the intervention. At admission, 24.4% of the parents had a moderate to severe level of depression and 39.4% a moderate to severe level of anxiety. The anxiety levels fell significantly in the intervention group parents.
Conclusion: HSCT for children deeply affects their parents' physical, emotional and social function as well as their care abilities. This intervention study provides an insight into the parents' care rationale and new perspectives on the complex interaction between parents, the child and the staff. This knowledge can help to identify the group of socially challenged parents who have most need for assistance in caring. This intervention program resulted in a fall in the parents' anxiety scores from admission to 100 days.

325 INVITED

Towards Defining and Measuring the Fundamentals of Care

Abstract not received