tyrosine kinase inhibitor and BMS-754807, a small molecule IGFR tyrosine kinase inhibitor.

Special Session (Wed, 23 Sep, 13:30−14:30)
Using evidence-based cancer nursing practice

234 INVITED

Overcoming the barriers to making change in cancer services

M. Krishnasamy[1]. [1]*Peter MacCallum Cancer Centre, Department of Nursing and Supportive Care Research, Melbourne Victoria, Australia*

Understanding factors that hamper change in health services is the key to successful evidence implementation, clinical innovation and a thriving health care environment. Following a consideration of the latest evidence around organisational change, a series of case examples will be presented to demonstrate how innovations in practice settings were achieved, despite considerable barriers to their implementation.

Special Session (Wed, 23 Sep, 13:30−14:30)
Sentinel node staging and clinical implications in GI tract

235 INVITED

Any value in colorectal cancer ?

R. Tollenaar[1]. [1]*AZ Leiden, Surgical Oncology, Leiden, The Netherlands*

The single most important parameter of prognosis in patients with localized colon cancer is the presence of nodal metastases at the time of surgical treatment. The 5 year survival rate for node negative patients (stage II) is 70−80% but only 45−50% for those with node positive tumors (stage III). Therefore, it is most important to accurately reflect the status of the regional lymph nodes.
This requires improvement of the surgical methods radicality as well as a more accurate determination of the indications for adjuvant chemotherapy administration.
Sentinel lymph node mapping (SLNM) and retrieval provides representative nodes to facilitate ultrastaging. The potential benefit of in vivo sentinel node biopsy (SNB) is the detection of aberrant changes and the possibility of detailed examination of high risk lymph nodes to improve assessment of lymph node metastases.
Factors of influence are a low number of lymph nodes resected due to inadequate surgical lymphadenectomy and/or inadequate pathological examination and the technique for the localization and definitions of the sentinel node. Ultrastaging by in-depth techniques improves detection of lymph node micrometastases and results in upstaging of 8−20%.
Good results of sentinel node harvesting in colorectal cancers have been shown by large studies. In a multicenter trial that included 500 patients SLNM showed patients' success, accuracy, sensitivity, and negative predictability values of 98%, 96%, 90%, and 93%, respectively [1].
Focused examination for SLNM provides an efficient detection of micrometastases with consequent results for upstaging and relation with patients' outcome. Future perspectives for early colon cancers may be treatment by local resection therapy only with a minimal invasive surgical sentinel node procedure.

References

[1] Saha S, Seghal R, Patel M et al (2006) A multicenter trial of sentinel lymph node mapping in colorectal cancer: prognostic implications for nodal staging and recurrence. Am J Surg 191: 305–310

236 INVITED

Sentinel node staging and clinical implication in GI-tract oesophageal/gastric cancer

P. Schlag[1]. [1]*Charite Comprehensive Cancer Center, Department of Surgical Oncology, Berlin, Germany*

The different techniques of sentinel lymph node staging (radio colloid, inks, fluorescence markers, nano particles) will be discussed regarding clinical feasibility, sensitivity and specificity for upper GI-tract cancer. None of the techniques is ideal and sufficiently effective for oesophageal or gastric cancer. Tumor location, tumor size, tumor type and technical experience of the investigator are the most significant factors for applicability and reliable results. Therefore, the technique of sentinel lymph node mapping must be tailored according the clinical context and technical aspects. Improved sentinel lymph node navigation and biopsy together with a sophisticated histopathological work up of the sentinel lymph node (including immunohistochemistry) will influence (more and more) to an increasing degree clinical decisions in the future. Examples are the indication for neoadjuvant therapies, limited (minimal access) surgeries or for radical lymph node dissection in upper GI-tract cancer.

Special Session (Wed, 23 Sep, 13:30−14:30)
Defining optimal strategies for HPV vaccination

237 INVITED

Post-vaccination HPV surveillance

J. Dillner[1]. [1]*WHO HPV LabNet Global Reference Laboratory Sweden, Clinical Microbiology Laboratory Medicine Skåne, Malmö, Sweden*

Effective HPV surveillance programs will be an essential component of appropriately implemented HPV vaccination programs. To contribute to improving quality of laboratory services for effective surveillance and monitoring of HPV vaccination impact, WHO has initiated a global HPV LabNet. The LabNet facilitates implementation of standardized, state-of-the-art HPV laboratory methods by introducing international standards and proficiency testing in order to make results comparable across laboratories worldwide. The LabNet is also intended to form the basis for development of a global network for HPV surveillance by using standardized and harmonized laboratory methodologies in order to provide sound data to policy-makers.
Major components of HPV surveillance systems that are currently being explored in pilot projects include:

i. surveillance for and HPV typing of condyloma acuminata in designated sentinel STD clinics. As condyloma has a short incubation time, this will be the earliest clinical condition that will reflect wthere control of the spreadf of HPV has been achieved.
ii. surveillance for the prevalence of HPV vaccine types and non-vaccine types in sexually active youth groups. A possible system to do this is anonymised HPV testing concomitantly with the Chlamydia screening programs.
iii. surveillance for the prevalence of HPV vaccine types and non-vaccine types in organised cervical screening
iv. assessment of the proportion of HPV-associated neoplasias (CIN, VIN/VaIN, cervical cancer and other HPV-associated cancers) that is attributable to vaccine and non-vaccine types of HPV and whether these proportions change over time.

Special Session (Wed, 23 Sep, 13:30−14:30)
Oncology societies: why?

243 INVITED

Why young scientists within oncology should join ESTRO

L.P. Muren[1]. [1]*Aarhus University Hospital, Depts. of Medical Physics and Oncology, Aarhus, Denmark*

The aim of this talk is to present the many reasons why young scientists in the field of oncology should join ESTRO. The arguments can basically be sorted into two categories, the first relating to who choose radiotherapy (RT) as a speciality, the second to the role and membership advantages of ESTRO as the key European organisation in the field of RT.
Second only to surgical management, RT is the most important treatment modality for cancer in terms of the contribution to patient survival. Today, about 50% of all cancer patients receive RT. The RT profession is an interdisciplinary speciality in its own, embracing the four different disciplines of radiation oncology, biology, physics and technology. Development in each of these disciplines, as well as the successful integration of the achievements, is instrumental for the further improvement of cancer therapy by RT.
ESTRO was founded in 1980, and its membership base has grown steadily ever since, with currently more than 4200 members. Currently, 61% of ESTRO's members are radiation oncologists while 24% are physicists; 22% of the members are residing outside Europe. In addition to becoming part of a large scientific community to broaden your professional network, ESTRO membership gives access to ESTRO's monthly scientific journal, *Radiotherapy and Oncology*, its quarterly membership magazine as well as dedicated members pages on the ESTRO website (www.estro.org). Reflecting its membership base, ESTRO activities of both educational and scientific character are aiming at all four disciplines in the field of

RT. In 2009, ESTRO is offering 29 different teaching courses, including special editions organised in developing countries (e.g. several in Asia). ESTRO is also involved in the formulation and (at the moment) updating of European standards for training curricula. To support the scientific advancement of RT, ESTRO organises annual meetings, in even years on its own, in uneven years together with ECCO/ESMO; these years the three other RT disciplines have their own meetings. The ESTRO meetings are truly interdisciplinary, with both dedicated and joint tracks for physicists, biologists and technologists, in addition to radiation oncology tracks. From the 2008 meeting, there have also been dedicated sessions developed by and for young scientists in the field of RT. In addition, ESTRO has been/is involved in the organisation of several tumour site specific meetings (e.g. for head and neck and urological cancer) as well as inter-disciplinary meetings with other medical specialities (e.g. nuclear medicine).
RT is an important treatment modality in the management of cancer. With the many on-going developments in radiation oncology, biology, physics and technology, it is very likely that RT also in the future will remain the major organ-sparing treatment alternative for cancer. In Europe, ESTRO is the key player in this field, providing support for this process through education, training and the advancement of science.

Scientific Symposium (Wed, 23 Sep, 14:45−16:45)
Liver metastases from colorectal cancer

245 INVITED

Radiofrequency ablation, a new standard?

T. Ruers[1]. [1]*Antoni van Leeuwenhoek Ziekenhuis, Department of Surgical Oncology, Amsterdam, The Netherlands*

Introduction: During the past few years techniques on tumour ablation by radiofrequency have evolved significantly. This development resulted in an increasing use of radiofrequency over Europe. Although the technique proved to be safe and was adopted by many institutions, the place of radiofrequency ablation in patients with colorectal liver metastases is still not well defined. Hence, today there is still a clear need for scientific evidence that defines the role of radiofrequency therapy in patients with colorectal liver metastases.
Technique and devices: The basic idea behind local tumour ablation is to selectively destruct tumour tissue without significant damage to the remaining liver. RFA can be performed during laparotomy (open), laparoscopy or percutaneously. On line monitoring of the ablative procedure is crucial in order to obtain complete tumour destruction. Ultrasonography is the most commonly method used and allows accurate tumor destruction during open procedures. For percutaneous RFA, both CT and MRI imaging have been reported to be more reliable.
Local tumour control by RFA: For lesions smaller than 4 cm local recurrence rates after open RFA procedures (during laprotomy) are generally be reported around 5−7%. For percutaneous RFA comparable results are reported when the procedure is performed under CT or MRI guidance.
Use of RFA in patients with unresectable colorectal liver metastases: Chemotherapy is the gold standard for patients with unresetable colorectal liver metastases. From the theoretical point of view, however, local tumour destruction by RFA could be beneficial to those patients with (unresectable) liver metastases only. Despite many reports published so far, it remains difficult to delineate the role of RFA in this patient category. Results published are often confusing by reporting overall treatment results in a wide variety of different tumour types and with many different treatment strategies. It is only until recently that the interim results of a randomized study became available (CLOCC study, EORTC 40004). This phase II study investigates the efficacy of RFA plus chemotherapy versus chemotherapy alone in patients with unresectable colorectal liver metastases. Interim analysis shows that PFS is 16.8 months in the RFA arm versus 10 months in the chemotherapy only arm. When definite analysis confirms these results, RFA becomes an acceptable treatment option in this patient category.
Use of RFA in patients with resectable colorectal liver metastases: It is highly likely that with a local recurrence rate of 7%, local tumour ablative procedures like RFA may enter the arena of treatment alternatives for resectable colorectal liver metastases. However at present, patient selection and treatment strategies with combined treatment of RFA plus chemotherapy need further evaluation before RFA may be considered as an equivalent treatment option to resection.

246 INVITED

Liver metastases from colorectal cancer. Which staging method is optimal?

W.J.G. Oyen[1]. [1]*Radboud University Nijmegen Medical Center, Department of Nuclear Medicine, Nijmegen, The Netherlands*

Various imaging modalities for staging patients with metastatic colorectal cancer have emerged or have evolved into powerful tools in the last decade. Multislice CT is still the cornerstone for choosing appropriate treatment. MRI (with or without novel contrast agents) provides better delineation of liver metastases. Furthermore, positron emission tomography (PET) using FDG has has shown that the addition of FDG-PET changes patient management in up to 30% of patients with potentially resectable liver metastases, mainly by detecting previously unknown extrahepatic disease. FDG-PET is also useful in the follow-up of patients who underwent surgical procedures of the liver, since it is sensitive in detecting residual or relapse malignancy in scarred liver tissue following both resection and local ablative techniques. For follow-up during systemic therapy, early FDG-PET appears predictive for response to therapy.
FDG-PET, Computerized Tomography and Magnetic Resonance Imaging are complimentary techniques in staging and restaging patients with advanced colorectal cancer. A combination of FDG-PET and CT scanning characteristics seems promising, and integrated PET/CT is becoming more widely available, although the exact clinical value and efficacy is not yet fully established. In addition, assessment of these modalities in joint reading sessions with radiologist, nuclear medicine physician, medical and surgical oncologists significantly impacts upon patient management.

247 INVITED

Systemic treatment

H. Schmoll[1]. [1]*Universitätsklinikum Halle, Klinik für Innere Medizin IV, Halle, Germany*

Patients must be divided in 2 different groups: (a) patients with resectable liver metastases and (b) with unresectable liver metastases due to size, number or illeocation (or all of this). For resectable liver metastases (a) standard treatment is perioperative chemotherapy with 3 cycles FOLFOX before and 3 cycles after surgery. This approach is able to significantly prolong the time to recurrence/disease free survival. For the alternative approach which is postoperative adjuvant chemotherapy without preoperative chemotherapy, the data are not consistent. A metaanalysis of 2 trials give some, but not significant evidence in favour of postoperative treatment with either single agent 5FU or 5FU/Irinotecan based combination to prolong disease free survival. However, the level of evidence is stronger for the pre-/postoperative approach and should therefore preferred. However, in patients who had due to some circumstances no preoperative chemotherapy, at least postop treatment should be considered. The role of Bevacizumab (Avastin®) in addition to chemotherapy for postop adjuvant treatment is currently investigated. For group with unresectable liver metastases (b) the treatment of choice is highly active chemotherapy for 4−6 months, followed by surgical attempt to resect all residual disease as much as possible. This approach leeds to a long term survival of 15−25% of the patients depending on the initial situation. The best chemotherapy regimen is at least a triplet based on chemodoublet plus targeted drug or chemotriplet. For kras wild type tumor patients FOLFOX or FOLFIRI plus Cetuximab (Erbitux®) as well as a chemotherapy triplet, eg. FOLFOX/Irinotecan (Campto®) or XELOX/Irinotecan (Campto®) are of some equivalent activity and potentially superior to FOLFOX/Bevacizumab (Avastin®); however, clear data are lacking regarding the value of Bevacizumab (Avastin®) in comparison to Cetuximab (Erbitux®). For kras mutant tumor FOLFOX or FOLFIRI plus Bevacizumab (Avastin®) or FOLFOX plus Irinotecan (Campto®) are the treatment of choice; comparative phase II data indicate that the chemotriplet might be superior in terms of response induction over a Bevacizumab-based chemodoublet. A randomised trial is needed to elucidate the optimal chemotherapy in this situation.

248 INVITED

Multidisciplinary perspectives of the management of liver metastases from colorectal cancer (CRCLM)

G. Poston[1]. [1]*University Hospital Aintree, Oncology, Liverpool, United Kingdom*

We have made major progress over the last 20 years in the management of patients with CRCLM. In 1989, very few patients (mostly those with solitary, easily respectable metachronous tumours) were considered for surgery with curative intent. Most were offered either best supportive care or at