Acute/delayed and overall CR were observed in 33 pts. (78.6.1%)/26 pts. (61.9%) and 24 pts. (57.1%) respectively. Acute and delayed nausea were observed in 11 pts. (26.2%) and 14 pts. (33.3%). No CTC Grade 3−4 were observed within the observational period. The incidence of ifosfamide induced encephalopathy was 22.2%.
Conclusions: The triple antiemetic combination including the NK1-antagonist aprepitant showed a good antiemetic efficacy in HDC with a favourable safety profile, except of a possible slightly increased incidence of ifosfamide encephalopathy. Compared to clinical data from the literature, aprepitant provides additional benefit in preventing CINV during HDC. The study is still ongoing.

3088 POSTER

Increase and decrease of jaw osteonecrosis (ONJ) in patients treated with intravenous bisphosphonates (BP): impact of preventive measures and reduced prescriptions in the experience of the "Rete Oncologica di Piemonte e Valle d'Aosta" ONJ study group

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Background: Since 2005, preventive measures (based empirically on the basis of clinical observations) have been recommended to reduce incidence of ONJ, before and during intravenous BP treatment. A reduction of new ONJ cases has been reported in 2 recent papers (Ripamonti, Ann Oncol 2009; Dimopoulos, Ann Oncol 2009) after implementation of dental preventive measures. Meanwhile, duration and indications of BP have changed in clinical practice (Coleman, BJC 2008) and new recommendations appeared (ie, Mayo Clinic 2006 and ASCO 2007, for myeloma patients; Aapro, Ann Oncol 2008, for solid tumors patients).
Material and Methods: Since 2005 the Piemonte e Valle d'Aosta (North-Western Italy, population: 4.3 million) Regional Oncology Network organized an ONJ Multidisciplinary Study Group with the aim to perform a systematic collection of diagnosed and confirmed ONJ cases and to extend preventive dental visits.
Results: On December 2008, 247 ONJ cases were recorded in BP treated patients affected by cancer, myeloma or osteoporosis/other diseases. Reason of BP therapy among 200 selected pts with myeloma or cancer: 39% bone metastatic breast cancer, 32% myeloma, 16% prostate cancer, 8% other cancers, 5% osteoporosis. Infused BP in ONJ patients (single one, or more BP in sequence): Zoledronic acid 89%, Pamidronate 32%, Ibandronate 2%. The number of new ONJ cases per year showed a reduction in 2007 and 2008 (37 and 21, respectively) as opposed to 2005 and 2006 (59 and 59 cases/year, respectively). BP prescriptions lowered in recent years (for Zoledronic Acid: 5995 infusions in 2002, 19040 in 2005, 13679 in 2008) possibly due to the shortening of treatment duration (not more than 2 years, as recommended by recent guidelines), the adoption of different schedules (i.e. every 3 months, after a monthly induction period), and a possible reduction in the population exposed to BP (reduced use of BP therapy in patients with a high risk-benefit ratio, and reduction of previous off-label prescriptions).
Conclusion: Even considering a possible "harvesting" effect (collection of all prevalent cases) in the first period (2005–2006), the reduction of new ONJ cases was notable after adoption of preventive measures. However, from 2005 onwards a consistent reduction of BP consumption data was registered in our Region (representative of Italian ones and of those in other European countries, for available data). Further analyses of these 2 competitive factors and of influence of other possible factors are ongoing.

Epidemiology, prevention

Poster presentations (Thu, 24 Sep, 09:00−12:00) Epidemiology, prevention

3500 POSTER

EUROCOURSE: towards optimisation of the use of cancer registries for scientific excellence in cancer research in Europe: an FP7 ERA-net project

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EUROCOURSE is a project funded in the 7th Framework Program (FP7) and initiated by the European Network of Cancer Registries (ENCR) and 'their' stakeholder paymasters. The project aims to root the vital position of cancer registration in cancer control across Europe through facilitating transnational and translational research. This 3-year ERA-Net project, started April 1st, 2009. As an ERA-Net project, it will facilitate maximal exchange of ideas and researchers within the European Research Area (ERA) created by the EU Lisbon agenda of 2000 and will provide the ground for a more direct involvement of the national funding bodies (Ministries and Cancer Societies) in European cancer registration, and its strengthened sustainability. The 15 EUROCOURSE partners represent program owners and/or program managers from 16 countries; 5 regional and 5 national cancer registries, 6 representing Ministries of Health or Cancer Societies and 5 regional authorities.
EUROCOURSE will explore the apparent diversity in the quality, usage and output, commissioning and funding of cancer registries across Europe. Since 1989 they are together in the European Network of Cancer Registries (ENCR, counting about 170 members) with the secretariat provided at the International Agency for Research on Cancer (IARC) of WHO in Lyon. The ENCR members contribute to international studies, notably the EURO-CARE Study coordinated from the Cancer Institute in Milan/Rome (about 70 contributors). The 10 EUROCOURSE workpackages (WP's) will synthesize and stimulate best (and ethical) practices in data collection, management, analysis, interpretation and peer reviewed publication. The aim is to combine the available advances in informatics technology with data privacy protection and to automatise data collection on European level through a common portal, while ensuring adequate quality control. The guidelines on how to handle in-situ cases, multiple primaries, clinical and death certificate only cases, etc. will be developed. Special interest will be given to perspectives for clinical evaluation in relatively new domains of geriatric oncology, cost-effectiveness of new 'expensive' drugs and quality of life in long term survivors, in which registries can play a pivotal role and truly reflect needs of patients. A WP will be dedicated to define the essential role of registries in evaluation of mass screening for cancer (e.g. interval carcinomas) and another one to prepare the structures for learning from population-based biobanks. Ethical conduct of registry-based operations and studies will be clarified, based on existing best practices that comply with the EU-directive. A special committee will be established to study these issues for the benefit of patients and their families. The collaborative and comparative use of cancer registration data will serve to improve cancer control across Europe and to strengthen population-based translational cancer research in each of the 5 relevant domains: cancer burden in population, prognosis, quality of care, quality of life and public health and etiology.
EUROCOURSE will thereby adopt a two-pronged approach focussed on:
Funding Organisations, i.e. program owners and program managers like Ministries and Cancer Societies: they will be made more aware of registry output as a basis for future commissioning and funding. Inegalities across Europe in access to data, funding of cancer registries and legal support to cancer registration will be used to aim at the most advanced model for all, also taking into account the low costs of a well functioning registry <0.50 Euro per inhabitant per year.
Cancer registries: will be provided with infrastructure for modern facilities for exchange of data and information and for harmonization of their data and practices. The process of data collection at European level will thus be streamlined to provide comparable, accurate and timely statistics.

EUROCOURSE's inclusive approach will culminate in a EUROPEAN CANCER CONTROL SUMMIT in the autumn of 2011 for all stakeholders in the cancer control community in Europe.
EUROCOURSE is funded by the EU DG XII as LSSH-CT-2008–219453

3501 POSTER

Progress against cancer in the Netherlands since the 1990 s: an epidemiological evaluation

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Background: Progress against cancer through cancer prevention, early detection/screening and improved treatment is often only measured by cancer survival statistics. However, to measure real progress incidence, survival and mortality trends should be taken into account. In this study we have clustered these trends to simplify the measure of progress against cancer. Data from the Netherlands for 1989–2006 were used as an illustration.
Material and Methods: Clusters were based on all possible combinations of the incidence and survival trend and were further classified by the possible effect of those combinations on the mortality trend. Data on incidence, 5-year relative survival and mortality of 21 cancer types from 1989 to 2006 were obtained from the population-based Netherlands Cancer Registry and Statistics Netherlands. Changes in incidence and mortality rates were evaluated by calculating the estimated annual percentage change. Five-year relative survival ratios were calculated for the periods 1989–1991 and 2004–2006. Relative differences of 5% and over were determined as a changing trend.
Results: In theory, nine clusters could be made in which each cluster was divided up into three sub clusters. The three clusters with a decreasing incidence were observed for 4 cancer types among Dutch males (larynx, stomach, lung, and pancreas) and females (stomach, gallbladder, cervix, and ovary) during 1989–2006. These observed incidence decreases were followed by a decreasing mortality. Three clusters with improving survival were illustrated by an observed improving 5-year relative survival for 9 cancer types among Dutch males from which 5 showed a stable or decreasing mortality despite an increasing incidence (colorectal, prostate, thyroid, leukaemia, and Non-Hodgkin lymphoma). Among females, survival improved for patients with one of 10 cancer types of which 7 were followed by an effect on mortality (stable or decrease) (colorectal, breast, ovary, thyroid, leukaemia, Hodgkin and Non-Hodgkin lymphoma). The cluster of an increasing incidence and a deteriorating survival was not observed in the Dutch data.
Conclusions: The nine clusters could be helpful in assessing progress against cancer by incidence, survival and mortality. In the example of the Netherlands progress is made in 9 cancer types among males and in 10 among females. The decrease in incidence is most likely a result of cancer prevention. The improved survival followed by a stable or decreasing mortality is probably a result of early detection/screening and/or improved treatment.

3502 POSTER

HOGG1 Ser326Cys polymorphism plays a role in lung cancer susceptibility: Analyses stratified by histologic type and smoking status

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Background: Human 8-oxoguanine DNA glycosylase, coded by *hOGG1*, has a role in repair of 8-hydroxyguanine which is one of the major forms of DNA damage generated by reactive oxygen species. In *hOGG1,* the genetic polymorphism rs1052133 displays functional difference by the higher enzyme activity in *hOGG1*-Ser326 than in *hOGG1*-Cys326. It is suggested that such an inter-individual variation in DNA repair capacity is associated with cancer risk. However, findings regarding the role of rs1052133 in lung cancer susceptibility have been inconsistent. Further, the associations among this polymorphism, risk of each lung cancer histologic type, and smoking status remain unclear. Herein, we investigated the impact of rs1052133 on lung cancer susceptibility, with the association of histology and smoking status, in order to detect high-risk individuals.
Materials and Methods: We conducted a case-control study with 515 incident lung cancer cases and 1030 age- and sex-matched non-cancer controls. The impacts of rs1052133 alone and in combination with smoking were evaluated as odds ratios (ORs) after adjustment for confounders using conditional logistic models. Furthermore, we also conducted a meta-analysis to estimate summary ORs of the homozygous Cys/Cys genotype for each histologic type of lung cancer.
Results: In overall analysis, those with the homozygous Cys/Cys genotype were at increased risk of lung cancer, as compared to those with the Ser/Cys and Ser/Ser genotypes combined [OR: 1.30, 95% confidence interval (CI) 1.01−1.67]. In histology-based analysis, the Cys/Cys genotype was associated with increased risk of adenocarcinoma (OR: 1.35, 95%CI: 1.01−1.82), and small cell carcinoma (OR: 2.43, 95% CI: 1.32−4.49). As for small cell carcinoma, this association was stronger in heavy smokers (OR: 2.83, 95% CI 1.59−9.42). Meta-analyses revealed significantly higher ORs for squamous cell carcinoma (OR: 1.81, 95%CI: 1.03−3.17) and adenocarcinoma (OR: 1.45, 95%CI: 1.17−1.80) in those with Cys/Cys genotype.
Conclusions: ORs for lung cancer were increased in Japanese individuals with *hOGG1* Cys/Cys genotype. Increased risk was significantly prominent in patients with small cell carcinoma and adenocarcinoma of the lung, especially in heavy smokers. Meta-analysis also showed an increased risk for each histologic type of lung cancer in those with Cys/Cys genotype. These findings indicated that the genetic polymorphism rs1052133 has some impacts on the susceptibility to lung cancer.

3503 POSTER

Breast cancer receptor status and ethnicity: The West London Experience

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Background: Receptor status (ER, PR and HER2) in breast cancer is well-known to influence prognosis and the benefit of targeted treatments. Studies in the USA have shown that racial differences exist in the receptor status of White, Black and Hispanic populations. We investigated the receptor profile of women with breast cancer in an ethnically diverse population in London, to determine if there was an association between ethnicity and receptor status.
Materials and Methods: This case series analysed all primary female invasive breast cancers diagnosed between 1.1.05 and 31.12.05 in the West London Cancer Network, London, UK. Data was collected from the case notes, pathology records and imaging reports and included patient age, self-identified ethnic group, tumour size, grade, lymph node status, ER/PR expression, and HER2 status. 15 ethnic groups were recorded, but simplified into White, Asian, Black and Other for the purposes of analysis. Statistical analyses involved frequency distributions and chi-squared tests of independence.
Results: A total of 633 cases were diagnosed among women ages 21−98; of these receptor status data was available for 556 cases. Of these cases, 77.9% were white, 7.2% were black, 10.6% were asian and 4.3% were classified as 'other'. ER receptor positivity (1−3+) was seen in 82.0% of cases overall, and differed by race: white 87.0%, black 73.0% and asian 87.2%. PR receptor was 69.2% overall and differed by race: white 69.1%, black 75.0%, and asian 66.1%. HER2+ was 12.9% overall and differed by race: white 12.7%, black 15.4% and asian 12.7%. Chi squared test did not reveal any association between race and ER ($p > 0.05$), PR ($p > 0.1$) or HER2 ($p > 0.1$) receptor status. Triple negative cancers were seen in 10.3% of our cohort, and differed by race white 7.4%, black 25.0% and asian 8.5%. Chi squared test showed a significant association between race and triple negative status ($p < 0.01$).
Conclusion: Our cancer network serves an ethnically diverse population, whose composition is different to the previous studies from the USA. In our population, ER+ was seen more commonly than reported in the medical literature and PR+ was as expected. We observed a lower proportion of HER2+, and a lower frequency of triple negative than reported in literature. The rate of triple negative disease was threefold higher in the black population than other ethnic groups. We report a significant association between race and triple negative invasive breast cancer in a UK population. Analysis of the data shows a similar receptor profile in both white and asian subgroups.