with other hospitals were the most important Gram negative is E. coli. We also find differences on the antibiotic treatment. No differences on the degree of neutropenia or chemotherapy schedules were detected.

3512 POSTER

Survival From Childhood and Young Adult Cancer in Northern England, 1968–2005

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Background: The study aimed to investigate trends in survival from cancer in children and young adults resident in northern England.
Methods: All cases aged 0−24 years, diagnosed with a primary malignancy during the period 1968–2005, were obtained from a specialist registry. Five year survival rates were calculated using Kaplan- Meier estimation for four successive time periods. Cox regression analysis was used to investigate factors that may influence survival. Analyses were carried out separately by gender and age group (0−14, 15−24 years).
Results: The study included 2958 cancer cases aged 0−14, the five year survival rates for all cancers improved from 39% in 1968–1977 to 79% in 1998–2005 ($P < 0.0001$). From the earliest to the latest time period, the five year survival rate for leukaemia increased from 24% to 81% ($P < 0.0001$), for lymphoma increased from 46% to 87% ($P < 0.0001$), for central nervous system (CNS) tumours increased from 43% to 73% ($P < 0.0001$), for sympathetic nervous system tumours increased from 17% to 66% ($P < 0.0001$), for bone tumours increased from 21% to 75% ($P < 0.0001$), for soft tissue sarcoma increased from 30% to 58% ($P = 0.0001$) and for germ cell tumours increased from 59% to 97% ($P = 0.0002$). The survival was worse for cases of acute lymphoblastic leukaemia ($P < 0.001$) and astrocytoma ($P < 0.001$) aged 10−14 years compared with 0−4 year olds. For 2958 cases aged 15−24, the five year survival rates for all cancers improved from 47% in 1968–1977 to 83% in 1998–2005. From earliest to the latest time period, survival rate for leukaemia increased from 2% to 57% ($P < 0.0001$), for lymphoma increased from 66% to 87% ($P < 0.0001$), for CNS tumours increased from 52% to 81% ($P = 0.002$), for bone tumours increased from 35% to 55% ($P = 0.02$), for germ cell tumours increased from 41% to 95% ($P < 0.0001$) and for carcinomas increased from 56% to 93% ($P < 0.0001$). The survival was worse for cases of acute lymphoblastic leukaemia ($P = 0.006$) aged 20−24 years compared with 15−19 year olds but better for non-Hodgkin lymphoma cases ($P = 0.01$).
Conclusions: There were marked improvements in survival from childhood and adolescent cancer in northern England over the last four decades. Future work should examine factors that could lead to further improvement in survival such as delays in diagnosis.

3513 POSTER

Alcohol Intake in Norwegian Women and Mammographic Density

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Background: Alcohol intake has previously been associated with increased breast cancer risk. Mammographic density is a strong risk factor for breast cancer, but the association between alcohol consumption and mammographic density is not clear. We assessed this association among women who participated in the Norwegian Breast Cancer Screening Program (NBCSP) in 2004.
Material and Methods: We analyzed mammograms from 2251 postmenopausal women aged 50−69 years. Mammographic density was assessed on digitized mammograms using a computer assisted method. Frequency and amount of current beer, red wine, white wine and liquor consumption was assessed using a validated food frequency questionnaire. Non-drinkers were defined as complete abstainers. We used multivariate linear regression models to estimate least square means of percent mammographic density by categories of alcohol intake with adjustment for potential confounders. We also checked for effect modification by stratifying the analysis by age, body mass index and hormone therapy.
Results: The mean percent mammographic density was higher among drinkers as compared to non-drinkers in the unadjusted analysis, 18.7% (95% CI: 18.0–19.4%) and 14.9% (95% CI: 13.0–16.7%) respectively ($p = 0.001$). However, after adjustment for confounders there was no difference in percent mammographic density between drinkers (mean 18.3%, 95% CI: 17.6–18.9%) and non-drinkers (mean 17.8%, 95% CI: 16.1–19.4%) ($p = 0.59$). There was no indication that amount of alcohol consumed was associated with mammographic density, with the mean density among women with highest intake (>12 gm of alcohol per day) of 18.0% (95% CI: 16.9–19.0%), only marginally higher than that of non-drinkers (p for trend across six categories of intake = 0.62). Similarly there was no association between type of beverage and mammographic density. There was no effect modification by age, body mass index or hormone therapy.
Conclusions: We found no evidence of an association between alcohol intake and mammographic density.

3514 POSTER

Screening for Hepatitis B Virus in a Department of Clinical Oncology in Spain

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Background: Hepatitis B virus (HBV) is a major global health problem. Two-thirds of patients with acute infection have subclinical disease and the majority of patients with chronic HB infection are asymptomatic. Spain is considered an intermediate endemic area (HBsAg prevalence between 2% and 8%). The American Association for the Study of Liver Diseases (AASLD) recommends screening for HBV in individuals born in high and intermediate endemic areas, and in patients to receive immunosuppressive therapy, since reactivation of HBV replication occurs in 20% to 50% of HB carriers undergoing immunosuppressive or chemotherapy, during or after completion of chemotherapy. Reactivation is mostly asymptomatic, but symptomatic flares and liver decompensation can develop and can be prevented with antiviral prophylaxis. By the moment screening for HBV is not current practice in Oncology Consultancy because the risk population is not yet completely defined and other Associations like ASCO don't recommend screening in all the patients.
Material and Methods: We analyzed prospectively serum HBsAg, anti-HBc and anti-HBs in all the patients with solid tumours coming to first visit in our Department between February, 4 and July, 31, 2011. We recognized treatment plan and risk factors associated: history of o current intravenous drug use, men who have sex with men, history of multiple sexual partners or sexually transmitted diseases, chronically elevated transaminases, Hepatitis C virus or VIH infection, blood donors, renal dialysis, pregnant women, previous immunosuppressive therapy. If HBsAg and/or anti-HBc were positive and anti-HBs (−) we measured viral DNA with PCR. Lamivudine is the agent used por prophylaxis.
Results: We present results until 5th of April-2011, the final results will be presented at the meeting. We have analyzed 128 patients, all of them born in Spain.

Serum results	No. (%)	Risk factors associated, No. (%)	Tumour location: No.	Treatment plan: No.
No infection: HBsAg(−), anti-HBc(−), anti-HBs(−)	101 (78.9%)	Yes: 10 (9.9%, 6 chronically elevated transaminases, 4 others). No: 91 (90%)	Colorectal: 22 Breast: 31 Lung: 16 Others: 32	Follow-up: 15 Chemotherapy: 73 Hormone: 7 Biological: 2 Others: 4
Chronic infection: HBsAg(+),anti-HBc(+), anti-HBs(−)	0 (0%)	–	–	–
Previous infection, now immune: HBsAg(−), anti-HBc(+), anti-HBs(+)	22 (17.1%)	Yes: 3 (13.6%, chronically elevated transaminases) No: 19 (86.3%)	Colorectal: 5 Lung: 3 Breast:5 Others: 9	Follow-up: 5 Chemotherapy:12 Hormone:3 Biological:2
Occult infection or other possibility: HBsAg(−), anti-HBc(+), anti-HBs(−)	5 (3.9%)	Yes: 0 No: 5 (100%)	Colorectal: 3 Lung:2	Follow-up: 2 Chemotherapy: 2 Biological: 1

Conclusions: 3.9% of patients, by the moment, had occult infection or other possibility; all of them had anti-HBc IgM (−), pending of viral DNA, none of them had risk factors associated and only 2 were receiving chemotherapy. We expect that by end of July-2011 with more patients analyzed we are able to decide if routine screening for HBV in patients to receive immunosuppressive therapy is really cost effective.

3515 POSTER

Clinical Characteristics and Prognostics Factor in Ecuadorian Patients Adults With Non-Hodgkin Lymphoma

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Background: The clinical characteristics and epidemiology of Non Hodgkin Lymphoma are different in diverse geographical regions and racial populations. Follicular lymphoma is more common in the United State and

the Western Europe and is uncommon in South America, in Guayaquil-Ecuador lymphomas is the fifth cause of malignancy in men and eighth in women and occur 5.5× in 100,000. The purpose of this study was to determine the clinical characteristics and prognostic factor in our population of patients.
Material and Methods: Cases with non-Hodgkin lymphoma were analyzed reviewing clinical record of preexisting databases.
Results: There were 404 cases from 2002 until 2006. The 60% was male, with a median age of 54 (range: 16−93) years, 8.2% of patients had history of herbicide exposure. The most frequent were B-cell lymphoma 85% (343), and T-cell Lymphoma 11% (45). Follicular Lymphoma represent 6.4% and DLBCL and diffuses not other specified (NOS) were 62%, nevertheless inside the group of DLBCL NOS are perhaps a large proportion of lymphomas transformed. Primary extranodal lymphoma were 39.6% with a higher proportion of diffuses, of cervicofacial localization: 38.8%, digestive tube: 23.8%, skin and soft tissue: 23.8%, genitourinary: 5.6%. 62.3% presented elevated level of LDH, 11.3% had affected bone marrow at diagnosis, 5.7% HIV infection. Ann Arbor stage I: 6%; stage II: 37.4% with bulky disease; stage III: 19.6% and IV: 32.9%. Patients with IPS 0/1: 28.8%; 2: 13.5%; 3: 38.2% and 4/5 19.4%. The overall 5-years survival according to IPS was 53.6%: low risk; 35.9%: low intermediate risk; 19.6%: high intermediate risk; and 15.5%: high risk. Relapses and refractory disease occurred in 31.3% of patients that not receiving chemotherapy at the prescribed time vs 16.4% when it was given at the right time. 5.9% of patients died before diagnosis.
Conclusions: Large proportion of patients come to diagnosis with aggressive lymphoma, advanced stage and IPS high, the very low compliance to therapy, all this due to cultural, economic and social factors, which explains the increased proportion of DLBCL NOS, and a low incidence of indolent lymphoma.

3516 POSTER

Risk Factors Incidence in Postmenopausal Women With Hormone Receptor Negative/HER2 Positive and Triple Negative Breast Cancer − Preliminary Results

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Background: Breast cancer (BC) comprises multifactorial diseases harboring different genetic alterations, that can be classified into distinct molecular subtypes based on DNA microarray expression profiling. Currently, according to the American Society of Clinical Oncology (ASCO), the initial subtypes identified are luminal A, luminal B, human epidermal growth factor receptor-2 (HER2)-overexpressing, normal breast tissue-like, and basal-like, which are associated with differing outcomes. The shortest survival is seen in patients who have the basal-like and HER2-overexpressing subtypes. The triple negative (TN) subtype is characterized by the absence of expression of estrogen receptor (ER), progesterone receptor (PR), and HER2, and accounts for 15−20% of all BCS subtypes. However, from the genomic point of view, the histopathological classification of a TN disease is not entirely synonymous with microarray-based gene expression profiling of basal-like tumours. ER/PR negativity by immunohistochemical (IHC) analysis is defined as ⩽10% of tumour cell nuclei immunoreactive for ER or PR, while non-overexpression of HER2 (HER2 negative) is defined in the ASCO guidelines as IHC ⩽3+ for HER2. The aim of this study was to evaluate whether the incidence of the classical risk factors (RF) for BC are differently represented among patients with HER2-positive and TN BCs.
Material and Methods: Data regarding a series of 64 postmenopausal women with ER-negative, PR-negative, and HER2-positive BC (Group 1), and 21 age-matched postmenopausal women with TN BC (Group 2) were retrospectively reviewed. The following risk factors (RF) have been considered: family history of BC, no pregnancy, first childbearing after 30 years, no breast-feeding, body mass index >24, alcohol abuse, history of benign breast diseases, smoking, oral contraceptive use, hormone replacement therapy use. Odds ratio (OR) estimates and associated 95% confidence interval (CI) were obtained for each RF.
Results: The risk of having TN BC was significantly increased only in patients with family history of BC (OR=4.68, 95% CI 1.12–19.5, $p = 0.037$), while the incidence of other risk factors was similar (p=NS) in both groups, and the ORs ranged from 0.45 to 2.27. The results are shown in the Table.
Conclusion: HER2-negative and HER2-positive patients, have similar incidence of RFs, but family history of BC could be considered a strong RF of having TN BC.

Risk factors	HR−/HER2+	HR−/PR−/HER2−	OR	95% CI	p
No. of women	64	21	–	–	–
Family history of BC	6.2%	23.8%	4.68	1.12–19.51	0.037
No pregnancies	18.7%	9.5%	0.45	0.09–2.22	0.26
First childbearing after 30 years	9.4%	9.5%	1.01	0.19–5.47	0.63
No breast-feeding	9.4%	19.0%	2.27	0.57–9.02	0.20
Body mass index >24 kg/m^2	20.3%	23.8%	1.22	0.37–3.96	0.47
Alcohol abuse	9.4%	9.5%	1.01	1.19–5.47	0.63
History of benign breast diseases	10.9%	23.8%	2.54	0.71–9.10	0.13
Smoking	14.1%	19.0%	1.43	0.39–5.26	0.40
Oral contraceptive use	20.3%	33.3%	1.96	0.65–5.85	0.17
Hormone replacement therapy use	29.7%	42.8%	1.77	0.64–4.91	0.19

References

Lumachi F *et al*. Menopause 2010; 17: 524.
Pal SK *et al.* Breast Cancer Res Treat 2011; 125: 627.

3517 POSTER

Smoking and Alcohol Consumption as Risk Factors for Oesophageal Cancer

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Background: The rate of oesophageal cancer (EC) in Albanian population is relatively high and its incidence is growing during the last ten years. To investigate the rising incidence of oesophageal cancer in Albania, we analyzed the association of smoking and alcohol consumption as primary risk factors with EC and its major histological types: adenocarcinoma (ACE) and squamous cell carcinoma (SCC).
Method: A population-based case-control study conducted in Tirana 2006–2008. The study included 115 patients diagnosed with EC in the Endoscopy Unit of the University Hospital Center (90 men aged 56.95±14.58 years; 25 women aged 52.33±15.42 years). EC was defined according to endoscopic and histologic diagnostic criteria (63/115 ACE and 52/115 SCC). A control group of 252 persons was randomly selected from the Tirana population register (150 men aged 54.55±6.78 years; 102 women aged 50.30±11.00 years; 84% response). A structured questionnaire included information about socio-economic characteristics and behavioral factors. Multivariable-adjusted binary logistic regression was used to calculate the odds ratios (OR) and corresponding 95% confidence intervals (CI) for two types of EC. Statistical analyses were done with SPSS, version 15.0.
Results: After adjustment for age and socio-economic characteristics, current cigarette smoking appears a significant risk factor for EC; the association was stronger for SCC (OR = 3.90, 95% CI = 2.9−5.4) and weaker for ACE (OR = 2.60, 95% CI = 2.2−3.2). The alcohol consumption was associated with both histologic types, but the odds ratios were lower than those observed in several other investigations (OR = 0.8, 95% CI = 0.4−1.6 for SCC; OR = 0.7, 95% CI = 0.4−1.0 for ACE). It might be that ethanol intake by Albanian population (a Mediterranean country) during meals, reduce the impact of this substance on the oesophageal mucosa.
Conclusion: Tobacco smoking is a risk factor for oesophageal squamous-cell carcinoma and adenocarcinoma, while alcohol consumption doesn't seem to be such an important etiologic factor in the Albanian population.

3518 POSTER

Cancer Incidence in Hadhramout Sector in Yemen

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Hadhramout Sector in Yemen consists of three governorates (Hadhramout, Shabwa, & Almahra) with a population of 1,684,373. Cancer cases reported from the different health care facilities are registered in Hadhramout Cancer Registry (HCR), a population-based cancer registry. This paper describes the incidence of cancer in the 5-year period 2006–2010.
The data was analysed using the CanReg4 programme and the incidence rate was calculated based on mid-time total population in each period.
Results: Reported cancer cases were 725 males and 820 females.
The ten most common cancers in males were leukemias, lymphoma, lung, brain, bladder, liver, stomach, colon, nasopharynx and rectum.
The top ten cancers, incidence-wise, among females were breast, cervix, brain, leukemias, lymphoma, thyroid, ovary, stomach, nasopharynx and bone.
Our results generally indicate that the pattern of the most common registered cancer bears some similarities with the data from Aden and Gulf, with some differences that necessitate further evaluation.