In 1998 and 2004 we conducted with a poll institute (Sofres) a national survey targeting adult cancer patients, physicians and nurses involved in cancer care in France.

Overall 1120 pts, 218 nurses, 109 physicians were included in these 2 surveys. 57% of pts were female, with a mean age 54 years, all receiving chemotherapy (1/3 adjuvant, 1/3 first line, 1/3 beyond). During last 3 months the mean number of invasive procedures was on average 24 per patient: this included IV perfusion (direct or via central access port) for chemotherapy (87%, 15 procedures /patient), blood tests (86%, 10/patient), IV injections for CT scan (61%, 1.9/patient) and others (bone marrow and skin biopsies, lumbar or pleural puncture – 31%, 2.6/patient). For 25% of patients and 80% of physicians and nurses pain related to the repeat of invasive procedures was considered as very disturbing. For 29% of patients this interfered with their psychological status and was correlated with the duration of chemotherapy.

90% of physicians claimed to inform patients about invasive procedures but only 50% of patients declared to be informed. The major differences between 1998 and 2004 concern the more frequent use of local or general anaesthesia (injection or anaesthetic cream) – 15% vs 46%, the possibility for patients to get informations about invasive procedures, a better communication between physicians and nurses and more involvement of the physicians in pain care.

This survey shows that invasive procedures are an issue in cancer patients even when the pain induced is low because of their repetition. Perception of distress induced is very different between patients and caregivers.

Even if the management of patients undergoing invasive procedures has improved since 1998, a more systematic evaluation and use of formal protocols especially for pain are needed.

1313 PUBLICATION

Impact of the G1691A Factor V, G20210A Prothrombin Gene Mutations and acquired risk factors on thrombosis risk in patients with gastrointestinal carcinoma

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Venous thromboembolism (VTE) is one of the most important cause of morbidity and mortality in cancer patients. To date few and conflicting data are available on acquired and genetic risk in these patients. We investigated the influence of the prothrombotic gene mutation factor V G1691A (factor V Leiden), prothrombin G20210A, and acquired predisponding factors on the risk of a first episode of venous thromboembolism in gastrointestinal cancer patients treated and/or followed up in a single institution.

Between December 2001 and December 2004, the occurrence of a first symptomatic Venous thromboembolism (VTE) was investigated in a cohort of 327 gastrointestinal cancer patients. For each patient the clinical history, the kind of malignancy and chemotherapeutic treatment were recorded, as was the date of treatment. A multiple logistic regression model was developed to assess the effect of age, gender, chemotherapy, and extension of disease on the risk of VTE. In addition we performed a nested case-control study including 30 patients (cases) with venous thromboembolism and 60 controls without DVT matched with cases for age, identical chemotherapy, stage of disease and prognostic features. For these patients the G1691A factor V and G20210A prothrombin mutation genotypes were analyzed. Thirty out of 327 patients (9.2%) had a first VTE episode. Twentyfive out of 30 (83.3%) subjects with TVP had metastatic disease, and the event occurred during chemotherapy for 25/30, 22 with advanced and 3 with limited disease. The median time from start of chemotherapy to thrombosis was 61 days (interquartile range from 28 to 141).

The nested case-control study showed that 1 out of 30 cases (3%) and 2 out of 60 controls (3.5%) were heterozygous carriers of the G1691A mutation [Odds ratio 0.97, 95% CI 0.08–12.58 ($p = 0.984$)], and 2 cases (6.6%) and 5 controls (8.7%) were heterozygous for the G20210A mutation [OR 0.81, 95% CI 0.15–4.36 ($p = 0.806$)]. At multivariate analysis, among general and disease-related factors the presence of metastatic disease is the only significant prognostic factor detected, associated with an increased risk of developing VTE [Odds Ratio 4.97, 95% CI 1.97–12.51 ($p = 0.0007$)].

Our data show the lack of an association between the two genetic thrombophilic polymorphisms here investigated and the risk of VTE in GI cancer patients. Instead, the advanced disease stage was strongly related to VTE development.

1314 PUBLICATION

"Supportive friend" – a web-based service for relatives/friends to cancer patients

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A special website for relatives/friends to cancer patients was developed by the Swedish Cancer Society (SCS) in January 2002. The purpose was to focus on the relatives/friends and their situation. Included in the website was "Supportive-friend", a web-based service aiming at creating supportive contacts between relatives/friends. The site is presented at the SCS website, *www.cancerfonden.se/anhorig*

Purpose: To describe the users in terms of gender and age. The number of "supportive-friends" registered, number of "supportive-friends" connected to each registered friend, duration of contact, reason for being a "supportive-friend" and use of other psychosocial support will be presented, as well as accessibility to the web site.

Methods: Gender, age and the relatives/friends' cancer diagnosis are registered at application to become a "supportive-friend". A questionnaire was sent by e-mail in February 2004 to all registered "supportive-friends". Responses were recorded anonymously for ethical reason, thus no reminders were sent.

Results: By March 2005, 435 individuals had registered to become a "supportive-friend", 81% women. About 50% were 30 years or younger. 9% were older than 50 years. The diagnosis of the relative was reported by 13% to be breast cancer, 12% lung cancer, 10% brain tumor, and <10% for other diagnoses. 21% did not report any diagnosis. There were no differences with respect to age, gender and diagnosis of relative between those who responded to the questionnaire and the total sample of registered "supportive friends". The results from the web-based questionnaires will be presented.

Conclusion: "Supportive-friend" attracts a large number of relatives/friends of both sexes, primarily young people. Relatives/friends who have experience of diseases associated with a bad prognosis, are frequent users of this service. "To help others" is a strong motive to be a "supportive friend".

1315 PUBLICATION

Patient-specific risk factors of chemotherapy-induced neutropenia

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Objective: To evaluate patient-specific risk factors of chemotherapy-induced neutropenia.

Methods: 92 cases of cancer patients with neutropenia after chemotherapy were retrospectively analyzed and Logistic regression analysis was used to select the significant patient-specific risk factors.

Results: Among 92 patients, 138 episodes of 63 patients experienced neutronpenic events, grade 3 and 4 neutropenia was 22.0%, 12.4, respectively. Patients who experienced one neutropenic event had a higher risk of a second event, $P = 0.05$. Anorexia, poor staging and advanced age were associated with greater risk of neutropenia, $P = 0.01$, multiple logistic regression analysis indicated that anorexia, poor staging were the most significant risk factors of grade 3 and 4 neutropenia, anorexia was the most significant risk factor of grade 1 and 2 neutropenia.

Conclusion: Anorexia, poor disease stage and advanced age may be patient-specific risk factors of neutropenia, anorexia may play a important role in chemotherapy-induced neutropenia.

1316 PUBLICATION

Evaluation of anxiety level during intracavitary brachytherapy applications in patients with gynecologic malignancy

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Purpose: Anxiety level among the patients with gynecologic malignancy during intracavitary brachytherapy applications were evaluated and the factors influencing the scores were assessed.

Material and methods: Anxiety level during intracavitary brachytherapy applications and factors influencing the anxiety level were evaluated in 146 patients with gynecologic malignancy. The patients were evaluated in terms of quality of life and psychological status before each brachytherapy application using Hospital Anxiety and Depression Scale (HADS). The total score was 21. The scores were grouped as follows: 0–7: Normal, 8–10: Borderline, 11–21: Abnormal. The patients were also questioned

about factors which could affect the anxiety level such as marital status, education level, number of parity and whether they were operated or not.
Results: Between January 2003 and August 2004, 146 patients were evaluated. Median age was 56 (range: 27–80). Eighty-six patients had cervix uteri carcinoma and 63 had endometrial carcinoma. Sixty-seven patients were premenopausal and 85 were postmenopausal. The median parity number was 3 (range: 0–10). Eighty-nine patients had at least three children. Sixty-seven patients were operated. One hundred twenty-five patients were married, 24 patients were unmarried or widowed. Before the treatment, the anxiety scores were normal in 49 patients (32%), borderline in 41 patients (28%) and abnormal in 59 patients (40%). The scores decreased in 69 patiens during the last application compared with the first application ($p = 0.00$). Marital status, and parity number showed significant correlation with anxiety scores ($p = 0.04$). Age, education level, having an operation or not had no significant correlation with anxiety level.
Conclusion: Intracavitary brachytherapy causes anxiety in most of the patients, so the patients need to be given detailed information before the application and be prepared psychologically in order to tolerate this treatment.

1317 PUBLICATION

Breaking bad news to cancer patients: transitioning from taboo to truth-telling in Russia

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Telling the truth is one of the bioethical questions in oncology and palliative care. It is one of the most difficult questions especially in the community where telling the truth has been forbidden for many years. Nowadays the attitudes towards this problem are being changed. What criteria do we have to choose to make the right decision?
Aims: The purpose of this study is to examine the attitude of doctors to telling the truth to cancer patients. It is considered that there is a transition from a truth-telling taboo to being more truthful with cancer patients in Russia about their diagnosis. Part of this study examines what principles doctors consider when breaking bad news to patients.
Method: 200 doctors (113 oncologists and 87 GPs) participated in an interview to express their opinion on the main principles of breaking bad news to cancer patients. We examined doctors' points of view on whether it is necessary to tell the truth to cancer patients or not, how much we must tell and when, what are the basic conditions, and principles of breaking bad news.
Results: The majority of the doctors consider that it is necessary to tell the truth to cancer patients (91%). It has been suggested that ineffective or insensitive news disclosure can have a long term adverse impact on the patients, and it can cause difficulties in doctor-patient communication (83%). Truth telling was considered by the doctors to be very important both for patients and their families because it helps to cope with psychological difficulties at the end of live and it gives the opportunity for spiritual growth (67%). More than a half have noted that it is important for health professionals to receive education and training to develop the skills to break bad news effectively. The respondents think that they must do it with care and intelligence in different periods of illness, though oncologists consider, that a doctor must inform a patient about his or her diagnosis at the first appointment. None of the doctors could offer any advanced truth telling guidance and none considered that a psychologist's consultation was important. Only 36% have noted that a patient should invite a relative or a friend to an appointment with a doctor for the first conversation. Only 29% of the respondents underlined that it was important to take into consideration personal psychological peculiarities of the patients when breaking bad news.
Conclusions: The research has shown that the necessity of telling the truth to cancer patients is obvious. But doctors, both oncologists and general practitioners, must be well prepared in developing the skill to break bad news. Good practice guidelines have been introduced into education practice in the State medical Academy for breaking bad news and are followed in clinical practice today.

1318 PUBLICATION

School related behavior in the child with a brain tumor: correlation of teacher's rating with IQ scores

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Background: School reintegration of children treated for a brain tumor is the cornerstone of their personal rehabilitation. Cognitive deficits are expected to explain most of the difficulties encountered at school. However, the links between school functioning and neuropsychological evaluation have not been studied so far in this population.
Methods: School behavior was analysed with the 38-items, forced-choice questionnaire of Deasy-Spinetta that was filled in by the teachers. Wechsler scales were used to evaluated the IQ scores of the children. Correlations were made between these evaluations and clinical variables in an unselected sample of 72 children (mean age of 10.4 years).
Results: Most of the children were still mainstream at school. Mean IQ was 90.8 ($SD = 15.1$). 86% of the children had learning difficulties but 70% had also socialization problems. Infants and young children treated with high-dose chemotherapy and posterior fossa irradiation were at high risk of impaired school behavior. IQ scores were correlated with the learning problems identified by the teachers at school, the need for reward, immature behavior and emotional difficulties. However, IQ scores explained only 20% of the variability in the learning problems identified.
Conclusion: Results of the Wechsler scales and of the Deasy-Spinetta questionnaire are correlated and complementary in the description of the complex interactions between the cognitive status and the child's environment.

1319 PUBLICATION

Pulmonary AIDS related Kaposi sarcoma in the era of HAART

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Since the introduction of highly active antiretroviral therapy (HAART) there has been a dramatic reduction in the incidence of Kaposi sarcoma (KS) and an improvement in survival. We have previously reported the features of pKS in 106 patients from our cohort who presented between 1988 and 1994 and their median survival was 4 months (range 0–37 months). We wished to examine whether the outcome in pulmonary KS has also altered.
Methods: In a single institution cohort of 1140 HIV+ patients with KS, 305 were diagnosed in the HAART era (1996–2004). We examine the clinicopathological features and outcome of 25 patients with and 280 without pulmonary involvement (pKS).
Results: Patients with pKS were more often African (c2 test $p<0.0001$) and had lower CD4 cell counts at the time of KS diagnosis (MW U test $p = 0.005$). There were no significant differences in age, gender, plasma HIV-1 viral load or prior HAART treatment at the time of KS. The 5 year overall survival in the pKS group was 49% (95% confidence interval 26–73%) as compared to 82%(95% CI: 76–87%) for the non-pulmonary KS group (log rank $p<0.0001$).
Conclusion: The median survival for pKS is 1.6 years in this cohort which compares favourably with quoted rates of 3–10 months from the pre-HAART era. However, the prognosis of pKS remains poor and is significantly worse than for KS without lung involvement.

1320 PUBLICATION

Anxiety, depression and quality of life in cancer patients treated with chemotherapy: a prospective examination

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Background: The onset of cancer is often accompanied by severe emotional distress. However, estimates of anxiety and depression vary across studies and range from a low of 1% to a high of almost 50%. In consequence, psychological distress often goes undetected along the disease continuum and patients are denied proper management with adverse effects on QOL, not to mention the negative impact on the family and the institutional systems. The aim of this study was to assess the rates and clinical course of anxiety and depression in Greek patients with cancer scheduled to commence chemotherapy, and to investigate the determinants of global quality of life (QOL).