The ability to achieve rapid pain relief after only one treatment session, combined with the high safety profile of the procedure implies that MRgFUS has a significant potential for patients suffering from painful bone metastases.

3019 POSTER

Reduction of Physical Exercise is Associated With Chronic Fatigue and Poor Physical Health Within 5 Years After Cancer Treatment

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Background: The purpose of the present survey was to examine if reduction in physical exercise from pre-diagnosis to within five years after treatment is associated with chronic fatigue and poor physical health in a mixed population of cancer patients.
Material and Method: Patients with Hodgkin or non-Hodgkin lymphomas, testicular-, breast-, cervical-, ovarian- and prostate cancers, aged 18−75 who had finished curative treatment received a mailed questionnaire within 5 years after treatment. The questionnaire included the Fatigue Questionnaire (FQ), the Short Form-36 (SF-36) and the Godin Leisure Time Exercise Questionnaire (GLTEQ). Chronic fatigue and poor physical health were defined according to standard procedures for the FQ and the SF-36. The patients recalled their exercise level pre-diagnosis and reported their present exercise level (GLTEQ). Those who met public health exercise guidelines both pre-diagnosis and post-treatment were defined as those maintaining exercise and those who met the exercise guidelines pre-diagnosis but not post-treatment were defined as those reducing exercise. Multivariate logistic regression analyses were used to examine for the associations between the outcomes, explanatory variable and covariates.
Results: Among 472 participants, the median age was 54 years, median number of months since diagnosis was 41, 53% were female, 68% maintained exercise and 32% reduced exercise. Chronic fatigue was more common among those reducing exercise than among those maintaining exercise (55% versus 33%, $p < 0.001$). More of those reducing exercise also had poor physical health compared to those maintaining exercise (39% versus 15%, $p < 0.001$). Logistic regression analyses adjusted for socio-demographic and disease-related variables confirmed the associations between reduction in physical exercise and chronic fatigue [adjusted OR = 1.76 (95% CI: 1.14–2.73)] and poor physical health [adjusted OR = 3.05 (95% CI: 1.71–5.41).
Conclusion: Patients reducing their physical exercise level after cancer treatment have increased risk for chronic fatigue and poor physical health compared to those maintaining their exercise level. These results indicate that promoting continuance of physical exercise is relevant for follow-up of cancer patients post-treatment. However, confounding factors cannot be ruled out and the cross-sectional design limits the possibility to draw causal inferences. Studies with prospective design are therefore needed.

3020 POSTER

Role of Paroxetine in the Treatment Anticipatory Nausea and Vomiting in Cancer Patients: Multicentre Experience

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Background: Nausea and vomiting are acute side effects of chemotherapy most widely investigated. The nausea and vomiting that often accompany later treatments commences even prior to the chemotherapeutic agent being given, and this phenomenon has been defined as anticipatory nausea (AN) and vomiting. AN and vomiting is a learned response to one or more distinctive features of the chemotherapy clinic (conditioned stimuli) associated with the administration of emetogenic chemotherapy (unconditioned stimuli). The treatment of anticipatory nausea involves the use of benzodiazepines or the use of psychological techniques. Paroxetine is a potent selective serotonin reuptake inhibitor with indications for the treatment of depression, obsessive–compulsive disorder, panic disorder and social phobia. The recommended dose of paroxetine in clinical practice varies between 20 mg/die and 60 mg/die. The purpose of this study is to test the efficacy and safety of paroxetine in the treatment of anticipatory nausea and vomiting in cancer patients undergoing chemotherapy.
Methods: From June 2009 to January 2011 60 patients were included in the study. All patients were candidates for the execution of at least six cycles of chemotherapy and reported the occurrence of anticipatory nausea or vomiting after two cycles of chemotherapy. Response to treatment with paroxetine was assessed after each cycle of therapy from inclusion in the study. Was also evaluated the dose of paroxetine used more frequently and more effectively. Safety findings were also recorded.
Results: A total of 60 patients were included with a mean age of 70±11 years. Most frequent tumour types were breast (33%), colon (25%), lung (16%), pancreatic (16%) and ovarian (8%) cancers. At inclusion all patients were enrolled to take paroxetine drops 20 mg/day and patients who did not benefit by increasing the dose after each cycle, up to a maximum of paroxetine drops 60 mg/day. All patients were evaluated for effectiveness at each cycle of chemotherapy. 80% of patients reported disappearance anticipatory nausea or vomiting at the first reassessment (paroxetine drops 20 mg/die); 10% patients at the second reassessment (paroxetine drops 40 mg/die); 5% patients at third reassessement (paroxetine drops 60 mg/die); 5% patients non-responders. There was no significant toxicity experienced.
Conclusions: Paroxetine may be considered a drug of choice for the treatment of anticipatory nausea or vomiting in cancer patients.

3021 POSTER

Prospective Validation of the Palliative Prognostic Index in Terminally Ill Egyptian Cancer Patients

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Background: Patients with cancer and their caregivers frequently wish to know how long they expect to live. Improved prognostication would enable the patients and their carers to be better prepared for their impending death and allow clinicians to make better informed decisions about place of care. The Palliative Prognostic Index (PPI) was developed in 1999 by Morita et al, based on the following variables: Palliative Performance Status (PPS), oral intake, oedema, dyspnea at rest and delirium.
Patients and Methods: This is a prospective observational cohort study aimed to validate the Palliative Prognostic Index (PPI) in a population of terminally ill cancer patients referred to the palliative care unit of Kasr Al-Aini Center of Clinical Oncology, Cairo University, Egypt. One hundred patients were included in this study over three months period (Oct 2009 − Dec 2009). A numerical score was given to each variable, the sum of the single scores gives the overall PPI score for each patient and is used to subdivide the study population into three groups: Group 1 corresponded to patients of low PPI $\leqslant 4$, Group 2 of intermediate PPI > 4 and $\leqslant 6$, and Group 3 of high PPI > 6. Included patients were followed up for a minimum of three months. Follow up data were updated as of 31st March 2010.
Results: Multivariate Analysis revealed that PPS, PPI and presence of dyspnea or delirium had statistical significant effect on survival. Median survivals were 77 and 102 days in cases with and without dyspnea respectively ($P = 0.01$), while 76.5 and 98.5 days with and without delirium respectively ($P = 0.003$). Median survivals were 189.5, 97 and 62 days in patients with PPS of $\geqslant$60%, 30−50% and 10−20% respectively ($P = 0.0001$). Patients with low (PPI Score $\leqslant 4$), intermediate (PPI Score >4 and $\leqslant 6$) and high PPI (PPI Score >6) had median survivals of 107, 103.5 and 77 days respectively ($P = 0.001$).
Analysis of the different clinical and pathological factors as significant estimates of short term survival of 3 and 6 weeks showed that the PPI and the presence of dyspnea had statistically significant effect on 3 and 6 weeks-survivals of palliative cases in the study. PPS had significant effect on 6 weeks-survival only.
Conclusions: The median survival of the 3 subgroups according to PPI score were 107 days, 103.5 days, and 77 days for Group 1, 2 and 3 respectively compared to 68, 21 and 5 days of corresponding groups respectively as reported by Stone et al, 2008. This difference may be attributed to the early referral of the patients to the palliative care unit in our patients. Thus, the PPI may not be the best prognostic scoring system for Egyptian advanced cancer patients, so that further studies to evaluate other systems and to develop a suitable model is needed.
Because of survival prediction is a very active area of clinical trials, so that, the resultant predictivity could be further improved by integrating other prognostic factors studied in larger prospective, multicentric studies on different populations.

3022 POSTER

Survival Trends in Patients With Disseminated Cancer − Outcome of Palliative Cancer Treatment in the Friesland Province

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Background: The total number of patients living with a disseminated cancer has increased, most likely due to an ageing population, better imaging modalities and improvements in systemic therapies. During the so called palliative phase, patients may develop disabling symptoms needing

individualized care. Improving knowledge and consequently optimizing care in the palliative phase is becoming increasingly important. Therefore, more data about survival are needed to anticipate the medical requirements for the near future. In the Friesland province with 700,000 inhabitants, the data managers of the Radiotherapeutic Institute Friesland prospectively collected survival and patient data for all patients treated with radiotherapy, either with a curative or palliative intent. In the present study, we evaluated the survival time spent in the palliative phase from 1989 until 2010.
Material and Methods: The database was searched from Jan 1st, 1989 to Dec 31st, 2009 for all patients with solid tumours who presented with metastases, or developed metastatic disease during follow up. The following characteristics were noted: sex, age, primary diagnosis (lung, breast, prostate, other types of cancers), date of first metastasis, time of death. The patients were divided into four cohorts from presentation of first metastasis; before 1995 (I), 1995–1999 (II), 2000–2004 (III), and 2005–2009 (IV). Stratified per tumour type, survival after development of metastases was studied using Cox regression analyses. Reasons for potential bias in the results were also studied.
Results: A total of 23,291 patients were entered into the database. Of these patients, 9,569 (41%) had synchronous metastases, or developed metastases during follow up. There were no large differences in patient characteristics between the time cohorts. Although breast cancer patients had the best overall survival after occurrence of metastatic disease, only lung cancer patients showed an increased survival during more recent time cohorts (median OS, cohort IV 4.5, III 3.9, II 3.5 months, $P < 0.001$).
Conclusions: In spite of developments in antitumour therapies, in a time interval of 20 years, survival after occurrence of metastases improved only slightly in patients with lung cancer within the Friesland province. In non-lung cancer patients, no significant improvements were seen. More knowledge is needed on the actual time spent in the palliative phase and the consequent requirements for optimized palliative care.

3023 POSTER

Prospective Study on Satisfaction and Quality of Life of Oncological Patients Who Underwent TIVAD Placement

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Background: Totally implantable venous access devices (TIVAD) are easy and safe systems for infusion of chemotherapy in patients with cancer. The easiness of use and the guarantee of the preservation of the quality of life (QoL) make it the reference for the long-term venous access although poor data are reported in the literature about the QoL of patients who underwent TIVAD placement.
The aims of this study were to evaluate the satisfaction and the QoL of oncological patients who underwent TIVAD placement.
Material and Methods: Prospective study including exclusively oncological patients who underwent TIVAD placement under local anaesthesia. The questionnaire used was derived from the QoL EORTC questionnaire. The questionnaire was anonymous and evaluated the esthetical satisfaction (scar aspect and position), the pain during and after TIVAD placement, information before and during TIVAD placement and various aspect of the impact on daily life (discomfort, port position, . . .). Chi square tests were used for statistical analysis (independence of qualitative value).
Results: 289 patients participated in this study. There were 232 F (80%) and 57 M (20%). 92% of patients had no or little discomfort; 87.6% had no or little pain; 76.33% were very satisfied or satisfied by the port location; 89.32% were very satisfied or satisfied by scar location; 72.60% were very satisfied or satisfied by the esthetical results; 24.55% felt pain or pain more than expect. Preoperative information and intraoperative information were respectively excellent or satisfactory in 72.64% and 75.91%. Immediate pain was higher in patients <45 y ($p < 0.0154$), in patients with insufficient pre/intra-operative information ($p < 0.0001$) and in females ($p < 0.0001$). Late postoperative pain (>1 week) was higher in patients <45 y ($p < 0.0008$), in patients with insufficient pre-op information ($p < 0.0002$) and in females ($p < 0.0383$). Discomfort was higher in patients with insufficient information (pre/intra-operative). Esthetical satisfaction was less in patients <45 y ($p < 0.0203$) and in patients with insufficient pre/intra-operative information ($p < 0.0003$).
Conclusions: Pre-operative information has a major impact on the intra/post-operative pain, discomfort and esthetical results. Females of <45 y are more sensitive to scar location, port location and esthetical results.

3024 POSTER

Variation in Attitudes Towards Artificial Hydration at the End of Life – a Systematic Literature Review

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Background: Most terminally ill cancer patients have a reduced oral intake in the last phase of life. This may be seen as part of the natural dying process, or it may result in clinically relevant dehydration or malnutrition. Currently no consensus exists about what is the most appropriate management for terminally ill patients with limited oral intake. Therefore artificial hydration (AH) in end-of-life care is an important and emotive topic that frequently raises concerns from patients, relatives and healthcare professionals (HCPs). The aim of this review was to give an overview of currently available evidence around opinions and attitudes towards AH at the end of life.
Methods: We conducted a literature review on the attitudes towards AH at the end of life, using a systematic search for papers in five electronic databases (PubMed, CINAHL, PsycInfo, EMBASE and Scopus). All English papers published between January 1998 and December 2010 that contained data on opinions and attitudes towards the use of AH and its effects at the end of life were included.
Results: In total 11 studies reported on opinions towards providing AH, 9 studies reported on attitudes towards the effect of AH on quality of life and 4 studies towards its effect on survival. Reported percentages of respondents in favour of providing AH at the end of life varied from 22%-100% and for non-provision from 0%-75%. One third of the general public has been found to think that AH improves comfort, whilst among patients a majority feels it can have a physical or psychological benefit. HCPs were found to be less optimistic: 1–43% thought patients benefit from AH at the end of life. HCPs mostly agree AH does not prolong survival, although up to 89% of patients expect it does.
Conclusion: Opinions on the use of AH at the end of life vary. HCPs are more reluctant towards the use of AH compared to patients and relatives, and specialists in palliative medicine even more. Communication and education of this imperative topic in end-of-life care is important for better care and should be research-based.

3025 POSTER

Use of Chemotherapy at the End of Life Among Taiwanese Cancer Decedents, 2001–2006

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Background: The availability of new chemotherapeutic agents has lengthened the treatment timeline for advanced cancers and increases the likelihood of receiving chemotherapy near death. However, use of chemotherapy near the end of life may not benefit cancer patients, as evident by its precipitating emergency room visits, increasing intensive care unit care, precluding early hospice referral, highly frequent deaths in a hospital, elevated anxiety and depression, and a trend toward less satisfaction with care.
Purpose of study: To assess the association between continuation of chemotherapy in the last month of life and patient demographics, disease characteristics, primary physician's specialty, hospital characteristics, and healthcare resource availability at the hospital and regional levels.
Methods: Retrospective population-based cohort study using administrative data among 204,850 Taiwanese cancer decedents in 2001–2006. Multivariate logistic regression was conducted to identify determinants of use of chemotherapy in the last month of life using the generalized estimating equation (GEE) method with robust standard errors accounting for correlation in the error term due to clustering of individuals in the same hospital.
Results: Rates of continued chemotherapy in the last month of life for each study year were 17.5%, 17.4%, 17.3%, 19.0%, 20.0%, and 21.0%, respectively and have remained steady since 2001. Taiwanese cancer patients had greater propensity for continuation of chemotherapy in the last month of life if they were male (adjusted odds ratio [AOR]: 1.19, 95% confidence interval [CI]: 1.13–1.25), younger, single (1.21 [1.09–1.35]), had lower comorbidity levels, were diagnosed with hematologic malignancies (1.90 [1.09–1.35]) and breast cancer (1.24 [1.08–1.43]), had