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