in these 37 patients. The majority of lesions were melanoma (59%); 41% were other tumour types (carcinoma, adenocarcinoma and sarcoma).
Two drugs were used, bleomycin (BLM) and cisplatin (CDDP). BLM was delivered intratumourally or intravenously, while CDDP was administered only intratumourally. ECT was performed under general or local anaesthesia. Electric pulses were delivered by CLINIPORATOR™. EP occurred following the delivery of 8 high voltage pulses (1kV/cm), 100 μs long. Three different types of electrodes (plate, linear needle and hexagonal needle) were available for treatment. Evaluation of anti-tumour efficacy was based on WHO criteria: Complete Response (CR), Partial Response (PR), No Change (NC) and Progressive Disease (PD).
Results: Among the 37 patients, the average age was 63. The average size of tumour nodules before treatment was 1.82 cm^3 (SD 7.86 cm^3). The Objective Response (OR) rate (CR+PR) was 78.5% with a 63.2% CR rate. Non-melanoma nodules had a significantly higher OR rate (83.5%) than melanomas (75%), p = 0.009.
There was no significant difference between drug delivery modes: OR rate was 75.3% for the intratumour versus 82.9% for the intravenous route. Intratumour CDDP was found to be slightly more efficient (OR 82.5%) than intravenous CDDP (69.2%), N.S.
When the current levels delivered were considered, the best results were observed when at least 1.5 amps and 2 amps were delivered via needle electrodes and plate electrodes respectively.
Conclusion: ECT is a safe and effective treatment capable of controlling tumour growth locally. Negative side effects were rare and were tractable. This multicentre study allowed us to develop Standard Operating Procedures to be used as guidelines in daily clinical practice.

1306 PUBLICATION

Amenorrhea in younger women treated with neoadjuvant/adjuvant chemotherapy for early breast cancer

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Chemotherapy (CT)-related amenorrhea can influence heavily the quality of life of younger women with early breast cancer (menopausal symptoms, loss of fertility, long-term side-effects). On the other hand the suppression of ovarian function has a major therapeutic role in hormonal receptors positive patients (pts). The risk of amenorrhea is related to the type and doses of CT and to patient age (less than 20% in pts younger than 35 years treated with standard-dose CT). We analyzed 45 consecutive pts aged ⩽ 39 years with early or locally advanced breast cancer (Stage I to IIIc) treated with primary and/or adjuvant CT: 21 and 24 pts were aged < 35 and 35–39 years, respectively.
Characteristics of the pts: Stage I: 8 (18%); Stage II a-b: 18 (40%); Stage III a-b-c: 19 (42%); hormonal receptors (ER and PgR) were both positive (>10% by IHC) in 17 pts (38%), both negative in 14 pts (31%), ER+/PgR− in 10 pts (22%) and ER-/PgR+ in 4 pts (9%); 67% of the pts treated with adjuvant CT were node positive and the median number of axillary lymphnodes involved was 4 (range 1–16).
CT regimens (all doses are in mg/m^2): CMF d1–8 for 6 courses: 8 pts (18%); epirubicin 120 for 3–4 courses followed by CMF d1–8 for 3–4 courses:12 (27%); epirubicin 90 or doxorubicin 60 plus paclitaxel 175–200 for 4–6 courses: 9 pts (20%); FEC 75–100 for 6 courses: 6 pts (13%); high-dose sequential CT with peripheral haematopoietic stem cells support (cyclophosphamide 7000; methotrexate 8000; thiotepa 600 or mitozantrone 60 followed by melphalan): 10 pts (22%); three pts were treated with primary CT with anthracyclines/paclitaxel before surgery and high-dose adjuvant CT. CT was followed by hormonal therapy if ER and/or PgR were positive.
Results: after a median follow up of 46 mo.s (range 2–90) 7 patients relapsed (16%) and 3 died for metastatic breast cancer (7%). Forty pts are evaluable for amenhorrea (5 pts are still on treatment). Permanent amenorrhea was observed in 14 pts: 4 /17 (24%) in the group aged under 35 and 10/23 (43%) in the group aged over 35 yrs. These patients had received high-dose CT (4/4 in the former group and 6/10 in the latter), anthracyclines and paclitaxel (n = 3) or FEC (n = 1).
Conclusions: in this group of younger patients (aged ⩽39 years) amenhorrea was universal after high-dose sequential CT and rare (13%) in pts treated with standard dose CT (anthra. ± paclitaxel containing regimens). No permanent amenorrhea was observed in 20 pts treated with i.v. CMF or with epirubicin 120 mg/m^2 followed by CMF.

1307 PUBLICATION

Zoledronic acid provides early reduction in the occurrence of skeletal complications in patients with bone metastases from a broad range of solid tumors

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Background: Bone metastases are associated with significant skeletal morbidity in patients with advanced cancer. Patients with skeletal metastases are at risk for developing painful skeletal-related events (SREs), including pathologic fractures, spinal cord compression, and radiation or surgery to bone. Zoledronic acid is the only bisphosphonate that has demonstrated efficacy in preventing SREs in patients with bone metastases from any solid tumor.
Material and methods: In this retrospective analysis, the occurrence of SREs was evaluated at 1, 2, and 3 months after treatment initiation (zoledronic acid 4 mg or placebo every 3 or 4 weeks) in patients with bone metastases from prostate cancer (n = 422) or lung cancer and other solid tumors (n = 507).
Results: The numbers of SREs experienced at months 1, 2, and 3 are shown in the table below. Compared with placebo, zoledronic acid 4 mg substantially reduced the total number of SREs within the first 3 months of treatment in patients with prostate cancer or lung cancer and other solid tumors. While the number of patients was similar between the zoledronic acid and placebo groups, the total number of SREs was higher in the placebo group and the effect was observed as early as the first month of treatment.

Total Number of Skeletal-Related Events in the First 3 Months of Treatment.

	Number of events (number of patients at risk)			
	Prostate cancer		Lung cancer and OST	
Month	Zoledronic acid	Placebo	Zoledronic acid	Placebo
1	12 (214)	21 (208)	43 (257)	64 (250)
2	27 (203)	50 (199)	75 (229)	120 (215)
(186)	88 (190)	133 (185)	179 (174)	

OST = Other solid tumors

Conclusions: Zoledronic acid has a fast onset of action in the prevention of SREs in patients with bone metastases from any solid tumor with the effect observed within the first 3 months of treatment.

1308 PUBLICATION

Care during the last 3 days of life of patients in hospital

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Background: of all deaths in the Netherlands, about 40% occurs in the hospital. Whereas patients are usually admitted to a hospital to temporarily receive intensive treatment, care in the hospital may not be tailored to dying patients. Therefore it is worthwhile to investigate the characteristics of terminal care in the hospital.
Patients and methods: Between December 2003 and February 2005 data were collected concerning patients who died at the department of medical oncology of a general hospital and at the departments of medical oncology, radiotherapy, pulmonary diseases and gynaecological diseases of a university hospital in the Netherlands. Nurses who had been closely involved with the care for these patients were asked to fill in a written questionnaire on the care that was provided during the last 3 days of life. Medical information was gathered from the medical record.
Results: Hundred thirteen deceased patients were included in the study. For 99% of them the nurses filled in a questionnaire. The median age of the deceased patients was 66 years (range 19–90) and 50% of the patients were male. The cause of death was a malignancy in 89% of all patients. The median number of symptoms during the last 3 days of life was 15 (range 0–24). The most troublesome symptoms were fatigue, lack of appetite, shortness of breath and pain. Patients received a median of 2 medical interventions during the last 3 days of life, such as the set