Methods: An observational and longitudinal multi-centre study was carried out on a sample of anemic cancer patients (defined as Hb $\leqslant$ 11 g/dl according to EORTC guidelines). Sociodemographics, clinical indicators as Hb, and HRQoL measures as PERFORM questionnaire, LASA questionnaire and a visual analogue scale (VAS) were collected at inclusion and 3 months later. Anemic patients were classified as Hb responders (HR) if they improved $\geqslant$1 g/dL in Hb value at the end of follow-up. The mean score in HRQoL was compared among visits and the effect sizes (ES) for the aforementioned scores were obtained.
Results: A total of 292 patients in the study were HR: 58.9% women; 60 years old; 84.3 mean baseline Karnofsky score; 2.1 years from diagnosis. Lung (19.9%), breast (19.5%) and ovarian (10.3%) were the most common tumor types. Laboratory values and self-perceived HRQoL values are shown in table 1. HR patients showed a statistically significant improvement in PERFORM overall/dimension scores and ES ranging from 0.1 to 0.2. HR patients showed a statistically significant improvement in LASA scores and ES ranging from 0.2 to 0.3.

Table 1.

	Visit 1		Visit 2			
	mean	SD	mean	SD	p-value	ES
Laboratory values						
Hemoglobin, g/dl	10.0	,8	12.1	1.2	<0.001	2.6
Hematocrite, %	30.0	2.8	36.1	3.7	<0.001	2.2
Self-perceived HRQoL*						
Perform overall score	31.7	12.2	29.5	12.5	0.001	0.2
Perform ADL score	10.8	4.1	10.0	4.3	0.001	0.2
Perform beliefs score	11.1	4.5	10.1	4.5	0.001	0.2
Perform PL score	10.2	4.7	9.6	4.8	0.008	0.1
VAS** fatigue, mm	42.9	26.9	41.7	28.1	0.241	<0.1
LASA*** energy scale, mm	54.5	23.8	60.2	23.4	<0.001	0.2
LASA ADL scale, mm	55.7	27.4	62.4	25.8	<0.001	0.2
LASA overall QoL scale, mm	59.2	23.5	65.1	23.1	<0.001	0.3

ES: Effect size; SD: standard deviation; VAS: visual analogue scale; ADL: activities of daily living; PL: physical limitations; QoL: quality of life. Test Wilcoxon. *Low scores in Perform indicate better patient perception of cancer-related fatigue. Low scores in VAS and LASA scores indicates worse HRQoL.

Conclusions: Minimal Hb improvements of $\geqslant$1gr/dl were found associated with meaningful improvements in overall fatigue perceptions when assessed by means of PERFORM questionnaire. These results represent new evidences of the potential usefulness of PERFORM questionnaire for monitoring anemic cancer patients.

3019 POSTER

Current practice of prophylaxis with granulocyte colony-stimulating factors for preventing chemotherapy-induced neutropenia in breast cancer patients in Spain

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Background: Current guidelines recommend primary prophylaxis with granulocyte colony-stimulating factors (G-CSF) in all patients (pts) at high risk of chemotherapy (CT)-induced febrile neutropenia (FN).
Aims: To evaluate the incidence of neutropenia over the first 4 cycles of CT in breast cancer pts, and to describe G-CSF prophylaxis in clinical practice.
Methods: Multicentre, prospective, observational study including breast cancer pts initiating a CT regimen ($\geqslant$10% FN risk). Main outcome measures were: incidence of grade 3−4 neutropenia (G3−4N, neutrophil count (NC) $<1.0\times10^9$/L) and FN (NC $<0.5\times10^9$/L and fever $\geqslant$38ºC), number of pts receiving full dose on schedule (FDOS, $\leqslant$15% dose reduction and $\leqslant$3 days delay) and FN-related hospitalizations.
Results: The study included 735 pts [99.6% women, median age 51 y (range: 21−87), 99.1% ECOG 0−1, 34.8% stage III-IV]. At least 4 CT cycles were completed by 97.4% of pts (median cycle duration: 21 days). Most pts received docetaxel- (65.2%) or paclitaxel-containing (28.4%) regimens. G-CSF prophylaxis was used in 69.9% of pts [of which 86.6% was primary prophylaxis (PP) and 13.4% secondary prophylaxis (SP); 47.4% filgrastim (FLG) (88.6% PP) and 52.6% pegfilgrastim (PEG) (84.8% PP)]. In pts with G-CSF, prophylaxis the incidences of G3−4N and FN were 12.1% and 5.6%, respectively. Pts treated with PP had a lower incidence of G3−4N (7.8%) than pts with SP (40.9%, $p < 0.001$), irrespective of whether they received FLG or PEG. The incidence of G3−4N with FLG or PEG was similar (9.4% vs 12.1%, $p = 0.35$), but in FLG pts, a higher incidence of G3−4N was observed when treatment duration was <7 days/cycle (13.6% vs 3.7% for $\geqslant$7 days, $p = 0.018$). In pts receiving FLG, achievement of FDOS was less frequent with SP vs PP (54.2% vs 73.7%, $p = 0.045$), whereas no difference was observed for pts receiving PEG SP vs PP (70.3% vs 81.1%, $p = 0.13$). In total, 5.6% of pts with G-CSF were hospitalized due to FN for a mean (SD) of 6.6 (3.5) days. There were no differences in FN hospitalization between pts receiving PP vs SP, or FLG vs PEG prophylaxis.
Conclusions: Approximately one in ten breast cancer pts at high or intermediate FN risk developed grade 3−4 CT-induced neutropenia. Primary prophylaxis with G-CSF reduced neutropenia incidence compared with SP and, for FLG treated patients, improved CT delivery. Patients treated with less than 7 days of FLG experienced an increase in G3−4N.

3020 POSTER

Shorter post-infusion cooling time of scalp cooling in the prevention of docetaxel-induced hair loss

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Background: Alopecia is a common and distressing side effect of chemotherapy. Scalp cooling is practiced to reduce hair loss in patients receiving chemotherapy. The scalp is cooled before, during and after chemotherapy infusion. In general, positive outcomes of scalp cooling are reported, but it is unknown how the clinical outcomes in several chemotherapy regimens are related to cooling times, especially after infusion. An optimal pre-infusion cooling time proved to be 30 minutes; within this interval the temperature curve of the scalp skin had reached a horizontal level. In clinical practise post-infusion cooling times vary from 15 minutes to 3 hours in several chemotherapy schedules, based on clinical impressions and farmacokinetic considerations.
Patients/Methods: The objective of this multicentre trial (SCALP-study, ISRCTN 00283877) was to determine the impact of post-infusion cooling times on the preservation of hair in the 3-weekly docetaxel regimen, in mono- or combination therapy. In the first part of the study the post-infusion cooling time was 90 minutes (n = 65). In the second part patients were randomised between post-infusion cooling times of 45 (n = 54) and 90 (n = 51) minutes. Pre-infusion cooling time was 30 minutes. Scalp cooling was performed using the Paxman system.
Results: In this study, 190 patients with various kinds of cancer were included, among whom 69 men (36%). In the first part of the study, 90 minutes post-infusion cooling time resulted in 85% of patients not requiring a wig. The follow up is completed for 92% of the patients in the second, randomised, part. Hair was preserved in 85% with 45 minutes and 75% with 90 minutes post-infusion cooling time. Status: The inclusion of patients stopped at January 1st 2009, follow-up will be completed in September 2009. Final data on hair preservation will be presented as well as data on the number of patients that were eligible and the proportion that choose scalp cooling, data on tolerance and data on the impact on hair preservation of previous chemotherapy and personal characteristics, as type of hair and liver and kidney function.
Conclusion: Good hair preservation was observed in 45 as well as 90 minutes post-infusion scalp cooling time. The shorter cooling time declines the burden of scalp cooling in patients and is a great advantage in the time schedules of day care units.
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