Of these, 231 patients showed normal leukocyte values at start of CT (118 PP and 113 SP/TX patients). Median treatment duration was 4 days and was comparable across all three CT cycles. PP was associated with longer administration of filgrastim compared with SP/TX (5 vs 3 days). Increased duration of filgrastim administration was also seen in patients with co-morbidities (5 vs 4 days in patients without concomitant disease). In patients receiving filgrastim for PP, leukopenia was prevented over three cycles of CT in 48%, while 24% and 10% had leukopenia CTC grade 3 and 4, respectively. In comparison, severe leukopenia was observed in 54% (CTC grade 3) and 12% (CTC grade 4) of the patients receiving filgrastim as SP/TX; prevention of leukopenia was possible in only 14% of SP/TX patients. Nine percent of PP patients and 14% of SP/TX patients experienced neutropenic complications and/or febrile neutropenia. CT was discontinued during the first CT cycle in 3% of PP and 9% of SP/TX patients. According to the assessment of the attending physician, 96% of patients benefited from receiving filgrastim.
Conclusions: PP with biosimilar filgrastim was more effective at preventing CIN than SP or TX. Early prophylactic use of filgrastim therapy in the course of treatment is beneficial to patients. Cost savings associated with biosimilar filgrastim may improve patient access to therapy and encourage a move towards increased primary prophylactic use.

4026 POSTER

Rate of Hemoglobin (Hb) Decline by Age and Tumour Type in Patients (pts) Receiving Chemotherapy (CT) Without an Erythropoiesis-stimulating Agent (ESA) in the United States Community Setting

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Background: CT often induces anemia that can be treated with transfusions or ESAs (the ESA labels state to initiate ESAs in CT pts at Hb ⩽10 g/dL [EU] or <10 g/dL [US]); since low Hb of <9 g/dL may increase transfusions, understanding how quickly Hb declines from <10 to <9 g/dL in CT pts may help optimize ESA use.
Material and Methods: This retrospective observational assessment used clinic-based EMR data to estimate the proportion of CT episodes in which Hb declined from <10 to <9 g/dL by 3, 6, and 9 weeks (wks). Episodes with taxane, platinum, anthracycline, or gemcitabine doublets were identified at the time of 10 ⩽ Hb < 11 g/dL and when Hb further declined to <10 g/dL at least once in 9 wks. Episodes were re-indexed at Hb <10 g/dL to estimate the proportion that further declined to Hb <9 g/dL by 3, 6, and 9 wks without ESAs. Data were stratified by tumour type and age (<65 vs ⩾65 years [yrs]).
Results: 10942 CT episodes (between 8/1/08 and 6/24/10) with 10 ⩽ Hb < 11 g/dL were identified in 10523 pts from 63 US community oncology practices. Episodes evaluated included 72% women; 39% of the sample was ⩾65 yrs. 5535 episodes (51%) declined from baseline 10 ⩽ Hb < 11 g/dL to Hb <10 g/dL by 9 wks. Estimates of the proportion of these episodes that declined from Hb <10 to <9 g/dL for each tumour type by age category are shown (Table). Compared with pts <65 yrs, a statistically significantly higher proportion of episodes for pts ⩾65 yrs declined to Hb <9 g/dL within 3 wks (38% vs 34%; p = 0.0026) and 9 wks (49% vs 43%; p = <0.0001). A similar result was seen in breast cancer pts (<65 vs ⩾65 yrs) at 3 wks (p = 0.05) and 9 wks (p = 0.02).

Table: Proportion of CT episodes with Hb decline from <10 to <9 g/dL analyzed by tumour type and age categories (yrs).

	3 wks	6 wks	9 wks
Total episodes (n = 5535)	35%	43%	46%
⩾65 (n = 2222)	38%	46%	49%
<65 (n = 3313)	34%	40%	43%
Breast (n = 2110)	28%	35%	38%
⩾65 (n = 473)	31%	40%	42%
<65 (n = 1637)	27%	33%	36%
Lung (n = 1804)	42%	48%	51%
⩾65 (n = 1023)	41%	47%	51%
<65 (n = 781)	43%	50%	53%
Ovarian (n = 453)	36%	43%	48%
⩾65 (n = 199)	40%	48%	51%
<65 (n = 254)	32%	40%	46%
Other (n = 1168)	40%	47%	50%

Conclusions: Results suggest that pts with various tumour types receiving CT without ESAs transition quickly from Hb <10 to <9 g/dL. The proportion of CT episodes declining to <9 g/dL was higher in pts ⩾65 yrs than in younger pts. As elderly pts are less likely to tolerate low Hb due to co-morbidities, awareness of the higher risk of Hb decline in these pts is important for anemia care.

4027 POSTER

Age-related Changes in Plasma Levels of Inflamatory and Angiogenic Cytokines in Patients With Cancer

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Background: The majority of cancer incidence and mortality occurs in individuals aged older than 65 years, and the number of older adults with cancer is projected to significantly increase. As such, understanding the changes accompanying age in the context of the cancer patient is of critical importance. Age-related changes can impact tolerance of anticancer therapy and can shift the overall risk-benefit ratio of such treatment. It is increasingly recognized that several laboratory markers may predict morbidity and mortality in older adults; these biologic variables may further help in stratifying this group of patients based on risk. In this study we examine inflammatory and angiogenic markers in cancer patients classified according to their age in older adults.
Methods: Using ELISA test circulating Il-6, TNF alpha and VEGF were measured in the sera of 80 patients with different cancer of whom 38 (48%) were female in comparison to 40 healthy controls. Three groups of patients were studied, the first consisted of 25 patients (age 30−40 years); the second of 25 (age 40−70 years), the third group of 30 elderly patients (>70 years).
Results: Serum IL-6, TNF alpha and VEGF levels were higher in cancer patients as compared to control group. When patients were classified according to their age, a significant age-related increase of IL-6 and VEGF were observed (p = 0.009 and 0.034 respectively) but not with TNF alpha. Furthermore, high IL-6 and VEGF level were associated with further functional adverse outcomes.
Conclusions: A specific inflamatory and angiogenic status exist for elderly patients. The increased level of these markers might predispose these patients to clinical manifestations and non tolerence of the treatment. However, a study comparing these parameters only in elderly patients (>70 years) and relation to their clinical status are necessary to confirm these results.

4028 POSTER

Ability of the Comprehensive Geriatric Assessment to Predict Frailty in Elderly Patients Diagnosed With Cancer in a General Hospital

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Introduction: They have been developed different criteria for defining frailty in the elderly, but they are not unanimous, especially in the field of Oncogeriatry. Linda Fried's criteria are the most accepted in the scientific literature in general, however, the Oncogeriatry has made special emphasis on considering the Comprehensive Geriatric Assessment (CGA) as the main tool for distinguishing between frail and not frail patients.
Objectives: The aim of this study was to determine the role of CGA to predict the risk of frailty in elderly patients.
Material and Methods: It was conducted a prospective study in the Unit of Cancer in the Elderly, Section of Medical Oncology, in the General Hospital Virgen de la Luz de Cuenca. They were collected the following data: patients' age, sex, kind of tumour, tumoral stage, self-perceived health status and CGA. It was used the CGA model created by MJ Molina-Garrido et al. By a bivariate logistic regression analysis it was analyzed which of these factors are associated with risk of frailty, as measured by the Barber questionnaire.
Results: We included a total of 204 patients with a mean age of 79.2 years (range: 70.2 to 96.2 years). 57.4% (n = 117) were men. 30% had ECOG 0 (n = 61). 61.5% (n = 115) could read and write. 81.2% of the elderly (n = 134) considered that their health status was equal to or better that the health status for an individual of its own age. The most common tumours were digestive tumours (39.7%, n = 81), breast cancer or gynecological tumours (25.0%, n = 51) and urological and prostate tumours (14.7%, n = 30). 41.2% of patients (n = 80) had metastatic tumours. 74.7% (n = 148) had risk of frailty by measured by the Barber questionnaire.
In the bivariate analysis, only age (OR 1.161, 95% CI 1.034 to 1.303, p 0.011) and dependency in IADL (instrumental activities of daily live) (OR 18.149, 95% CI 2.663 to 123.713, p 0.003), were associated with a higher risk of frailty. The model had a Nagelkerke R2 value of 0.337. The