Materials and Methods: Cancer patients receiving chemotherapy in clinical practice were identified from the HealthCore Integrated Research Database®, a geographically diverse, fully adjudicated longitudinal claims database covering 13 health plans and more than 20 million US lives. Enrollment data, medical (hospital and outpatient) and prescription claims, and mortality (confirmed using the National Death Index) were examined for eligible patients from January 2001 – December 2006. FN patients were propensity score-matched (1:1) within each tumor type of interest (Non-Hodgkins Lymphoma, breast, lung, colorectal, and ovarian cancer) to those not experiencing FN. Study endpoints included overall mortality (anytime during follow-up) and early mortality (during a chemotherapy course). Proportional hazards regression was used to calculate hazard ratios (HR) with 95% confidence intervals for the propensity score-matched cohort adjusted for demographics, comorbidities, and other covariates.
Results: Matched FN and control groups each included 5,176 patients; average follow-up times were 14.4 and 15.3 months, respectively. Crude incidence rates of overall and early mortality were significantly higher for patients in the FN group than in controls for combined tumor types (7.9/1000 person-months [PM] vs. 5.6/1000 PM, $P < 0.0001$; and 3.4/1000 PM vs. 2.4/1000 PM, $P = 0.0001$, respectively). Proportional hazards regression demonstrated a significant increase in risk of overall and early mortality in patients with FN compared to controls (HR = 1.53 [1.35–1.72] and HR = 1.54 [1.29–1.85]), respectively.
Conclusions: The adjusted risk of mortality in patients experiencing FN is at least 50% higher than in comparably-matched patients without FN. This supports the inference that infectious complications due to neutropenia resulting from myelosuppressive chemotherapy are still significant and should be avoided.

3006 POSTER DISCUSSION

Predictive factors for toxicity of non platinum chemotherapy

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Background: Excepted for platinum based chemotherapy (CT), the doses of anticancer drugs are usually calculated according to the body surface area. The aim of this prospective study was to identify, in a routine practice, predictive risk factors of toxicity and to evaluate their evolution over time.
Methods: Patients (pts) with solid tumours treated with a non platinum based CT were included. Several criteria were evaluated at baseline, after 3 or 6 courses (according to the protocol) and at the end of the CT: age, sex, performance status (PS), weight, type of tumour, number of previous CT, cancer treatment, renal function (Cockcroft-Gault formula) and albumin.
Results: 200 pts were included between October 2007 and June 2008 at François Baclesse Center. The most frequent types of cancer were breast (60%) and digestive (29%); 43% of pts had metastases. The main CT were Taxanes, Fec, Folfox and Folfiri. Initial characteristics were: F/M sex ratio 75%/25%, mean age 58 years (22 to 85), PS 0 79%, baseline weight loss 30%, normal renal function (creatinine clearance over than 90 mL/min) 66% and an albumin level upper than 34 g/L in 53% of cases.
During CT 30% of pts contracted an infection, 78% presented at least a grade 2 toxocity (45% after 1 cycle and 75% after 3 cycles). Toxicities were mainly dermatological (grade >1; 51%), neurological (grade >1; 38%), digestive (grade >2; 18%) and haematological (12% fever aplasia, 43% grade 3−4 neutropenia and 10% thrombopenia). As a result, 38.5% of pts had a dose reduction or a delay of CT. Moreover, 10% of pts stopped CT before the end due to toxicity. Interestingly, 67% of them had at baseline hypoalbuminemia (>grade 1) or impaired renal function (less than 90 mL/min).
During treatment, 22% of pts had a decrease of renal function. Among 38% of pts who lost weight during CT, 30% presented a decline of creatinine clearance.
In multivariate analysis, predictive factors of digestive toxicity ($p < 0.05$) were older than 65, abdominal surgery, weight loss and digestive cancers. Low level of albumin, bone radiotherapy and breast cancer predicted haematological toxicity ($p < 0.05$).
Conclusion: A majority of pts with non plainum CT develop early significant toxicity with a modification of the standard treatment protocol in about 30% of cases. Identification of baseline predictive factors should help to adjust the initial dosage of CT to anticipate toxicity. Before starting CT, renal function and albumin level should be assessed in a routine practice.

3007 POSTER DISCUSSION

Herpes zoster in solid tumor and hematologic malignancy patients – a cohort study in a managed care organization

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Background: Given the limited available data, the aim of this study was to estimate the incidence of Herpes Zoster (HZ) among patients with invasive cancer.
Material and Methods: In this retrospective cohort study, we used the Kaiser Permanente Northern California cancer registry to identify adult health plan members diagnosed with an invasive hematologic malignancy (HM) or solid tumor malignancy (STM) during 2001–2005. Potential episodes of HZ were ascertained from time of cancer diagnosis through 2006 from electronic databases using inpatient, emergency department, and outpatient diagnoses, laboratory tests, and prescriptions for antivirals. HZ diagnoses were confirmed by abstraction and clinical review of information from patients' medical records. Incidence rates were calculated as the number of new occurrences of HZ per person years (py) of follow-up. Age- and sex-standardized incidence ratios (SIRs) were computed to compare HZ rates in cancer patients to reported rates in the general population (Yawn *et al*, 2007).
Results: Among the 11,044 STM patients (mean age 66 years at cancer diagnosis, range 18–103), the overall rate of HZ was 12/1000 py (total 21,522 py); it was 15/1000 py for breast cancer patients (n = 2026), 10/1000 py for prostate cancer patients (n = 2276), 20/1000 py for lung cancer patients (n = 1498), and 7/1000 py for colon cancer patients (n = 973). In STM patients, rates of HZ increased with increasing age at cancer diagnosis. Among all 2715 HM patients (mean age 66 years at cancer diagnosis, range 18–100), the overall rate of HZ was 31/1000 py (total 4465 py); it was 51/1000 py for Hodgkin lymphoma patients (n = 154), 25/1000 py for non-Hodgkin lymphoma patients (n = 1442), 56/1000 py for multiple myeloma patients (n = 416); and 23/1000 py for patients with myeloid leukemia (n = 319). Among both STM and HM patients, rates were similar among Caucasians and African Americans and were higher in persons with higher levels of immunosuppression. The SIRs and 95% confidence intervals for STM and HM were 1.8 (1.6−2.1) and 4.7 (4.0−5.6), respectively.
Conclusions: The incidence of HZ was higher among HM patients than among STM patients and varied in both groups by cancer subtype. Compared to reported incidence rates in the general population, the rate of HZ was nearly 2 times higher in patients with STM and 5 times higher in patients with HM.

3008 POSTER DISCUSSION

Renal function evolution in cancer patients results of the IRMA-2 study

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Background: In 2007, the IRMA-1 study reported the high prevalence of renal insufficiency (RI) in cancer patients. Because of this high frequency, the IRMA-2 study started to investigate the evolution of renal function in cancer patients.
Methods: Data were collected for cancer patients presenting at one of the 19 IRMA-2 centers in March 2005. Data included: sex, age, weight, serum creatinine (SCR), haemoglobinemia, type of tumour, metastasis (bone and/or visceral) anticancer drugs. Dialysis, myeloma and lymphoma patients were not included. Glomerular filtration rate (GFR) was estimated with the abbreviated MDRD (aMDRD) formula. Patients were retrospectively followed during 2 years after the inclusion, every 6 months, from March 2005 (T0) to March 2007 (T24).
Results: 4945 cancer patients (breast 1816, colorectal 747, lung 463, ovarian 294, prostate 251 . . .) were included in 19 cancer centre in France. Median age 60.0, mean weight 66.2, 62.8% were women. In the all population, mean GFR decreased from 90.8 to 83.7 ml/min/1.73m^2 over the