Background

- Non Hodgkin Lymphoma are one of the most frequent hematological malignancies observed in elderly patients.
- Geriatric assessment objectives that old adults with NHL vary considerably in performance status, comorbidities and functional reserve.
- Comprehensive geriatric assessment is the best way to identify the functional risks and disabilities of aged patients with the aim of providing care and organizing long-term follow-up.
- The chemosensitivity of NHL leads to prescription of a toxic anthracycline regimen with rituximab for fit patients and an adapted chemotherapy with rituximab for frail one.
- Patients have different levels of vulnerability to chemotherapy toxicity.
- CRASH score is known to be useful in older patients for screening risk of severe chemotoxicity in some variety of cancers.

Objective

- Validate CRASH score predictive value on adverse events in a geriatric population of Non Hodgkin Lymphoma patients.

CRASH score in the Older French patients with Non Hodgkin Lymphoma receiving chemotherapy


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Methods

- We performed a prospective, multicentric study on consecutive NHL patients treated by chemotherapy from august 2013 to september 2015, conducted in the regional network HÉMATOLIM.
- Inclusion criteria
  - 70 years old and over
  - Histologically proved B NHL according to the WHO guidelines
  - Geriatric assessment according to the SIOG recommendations for CGA
  - Available clinical and biological data
- CRASH score. Non Hematologic Risk Factor (NHRF) and Hematologic Risk Factor (HRF) are evaluated before chemotherapy.
- CRASH points for toxicity of chemotherapy regimens were established using the chemotox table values, regimens not listed were scored by analogy (1).
- Adverse events, grade 3 and 4, up to 1 month after chemotherapy are described according to the Common Terminology Criteria for Adverse Events version 3.0 (2).

Discussion

- Among patients with Low or Med-Low CRASH score, n=35/40 (87%), have no adverse event.
- Among patients with High or Med-High CRASH score, n=36/77 (47%), have adverse events.
- The data collected confirm the preliminary results presented in 2014 (SIOG Lisbonne) and highlight the good predictive value of CRASH score for adverse events occurrence.
- Occurrence of adverse events is significantly different between the High group and Low group, p=0.0002. (Pearson’s Chi-squared test)
- CRASH score objectives that quite half patients with High or Med-High risk have serious adverse events associated with chemotherapy.
- For most frail patients, management have to be adapted to their real health status.

Toxicity results

- Severe toxicity after treatment as been observed in 41/117 patients (35%)
- 1 to 10 events per patient
- Time of assessment:
  - post-c1: n=81
  - post-c2: n=7
  - post-c7: n=1

CRASH score, NHRF and HRF distribution

Toxicity according to the CRASH score

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Perspectives

- According to these results, we started a personalized management with a proactive care organization for all patients of the High group CRASH score eligible to chemotherapy.
- This personalised follow-up includes:
  - A close phone follow-up by the nurse care manager and a free direct oncall for patient.
  - Report to all the medical team when treatment starts:
    - Family physician about hospitalization if necessary
    - Hospitals (referral and peripheral hospitals)
    - Hematology and geriatrics departments
- We are considering to evaluate the impact of this management, on the occurrence of long-term serious side effects.

Chemotoxicity classification

Level 0

- Chlorochrome per os
  - Bendamustine
  - Endoxan
- Cytarabine
- VP16-Helofox
- Others
- Total

Level 1

- COP-Cytarabine
- Endoxan per os
- VP16-Helofox
- Others
- Total

Level 2

- BAC
- Bendamustine
- Cytarabine-Taxel
- DHAC
- ZEM
- GVD

Involvement

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