4CPS-082
L01 - Cytostatics

RISK OF MYELOTOXICITY IN NON-CANCER PATIENTS TREATED WITH CHEMOTHERAPY

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BACKGROUND

Myelotoxicity is a main concern when treating cancer patients with chemotherapy. It compromises safety but also the dose intensity received by the patient and thus treatment prognosis.

One study (Katsifis, 2002)[1] showed the incidence of myelotoxicity and its clinical consequences to be very low in patients with systemic lupus erythematosus (SLE) receiving cyclophosphamide.

To our knowledge, this has not been studied in other non-tumour diseases.

OBJECTIVES

We aim to assess the risk of developing clinically important myelotoxicity in non-cancer patients receiving intravenous cyclophosphamide.

MATERIALS and METHODS

Retrospective study from January 2001 to July 2019.

All patients who had received intravenous cyclophosphamide to treat a non-tumour disease where included.

Blood analysis test results up to a month after completing treatment were collected. Myelotoxicity was categorized according to the Common Terminology Criteria (CTC) for Adverse Events version 5.0.

Grade ≥ 2 neutropenia and thrombocytopenia were considered clinically relevant.

RESULTS

N=48
56% ♀
48.1 years old (IQR=38)
65% SLE

277 cycles

Most patients (72.9%) had no impaired counts of neutrophils and platelets. For those who had, they were considered severe (grade 3) or life-threatening (grade 4) in 7 and 2 patients respectively.

Neutropenia

All grades CTC → 24 administrations (8.6 %)
- Grade 2 → 9 courses (3.2 %)
- Grade 3 → 5 courses (1.8 %)
- Grade 4 → 3 courses (1.1 %)

Clinically relevant

Thrombocytopenia

All grades CTC → 10 administrations (3.6 %)
- Grade 2 → 7 courses (2.5 %)
- Grade 3 → 3 courses (1.1 %)
- Grade 4 → 0 courses

Clinically relevant

No statically significant relationship was found with age or primary diagnoses

CONCLUSIONS

Although the incidence is low, severe (G3) and life-threatening (G4) myelotoxicity is a serious side effect in non-cancer patients receiving cyclophosphamide and should be closely monitored.

[1]Katsifis GE, Tzioufas AG, Vlachoyiannopoulos PG, Voulgarelis M, Moutsopoulos HM, Ioannidis JP. Risk of myelotoxicity with intravenous cyclophosphamide in patients with systemic lupus erythematosus. Rheumatology (Oxford). 2002 Jul;41(7):780-

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