

Neutropenia in Patients Receiving Chemotherapy

Bernardette Blundell, Lilian M. Azzopardi, Anhony Serracino—Inglott
Department of Pharmacy, Faculty of Medicine and Surgery, University of Malta, Msida, Malta
email: bblu0001@um.edu.mt



INTRODUCTION

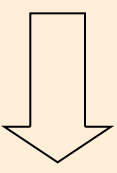
Chemotherapy–induced neutropenia is a common complication of chemotherapy which is addressed by the use of Granulocyte–Colony Stimulating Factor (G-CSF).

AIMS

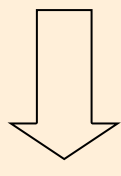
- To analyse the incidence of neutropenia.
- To evaluate the effectiveness of G-CSF.
- To analyse anti-infective agents prescribed to treat febrile neutropenia.

METHOD

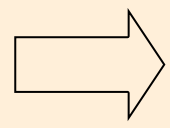
Ethics committee approval was granted



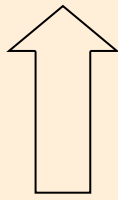
23 patients, 14 female and 9 male, being treated for Hodgkin (8 patients) and non-Hodgkin (15 patients) lymphoma at the Mater Dei Hospital



‘Patient characteristics checklist’ completed after each cycle for 4 cycles



Analysing information involving anti-infective agents prescribed to treat episodes of febrile neutropenia



‘Patient interview on the occurrence of side-effects’ performed as an interview to the patients, following each cycle for 2 chemotherapy cycles

RESULTS

Patients not administered with G-CSF experienced neutropenia hospitalisation in 20 out of 48 cycles (42%), while patients receiving G-CSF, had to be hospitalised in 6 out of 44 cycles (14%) (p-value 0.003).

Females and males had an average neutrophil count of $2.66 \times 10^9 /L$ and $3.9 \times 10^9 /L$ respectively, following chemotherapy. Treatment for Non-Hodgkin lymphoma had a greater myelosuppressive action than that for Hodgkin lymphoma.

Piperacilin/tazobactam was the most frequent anti-infective combination used to treat febrile neutropenia.

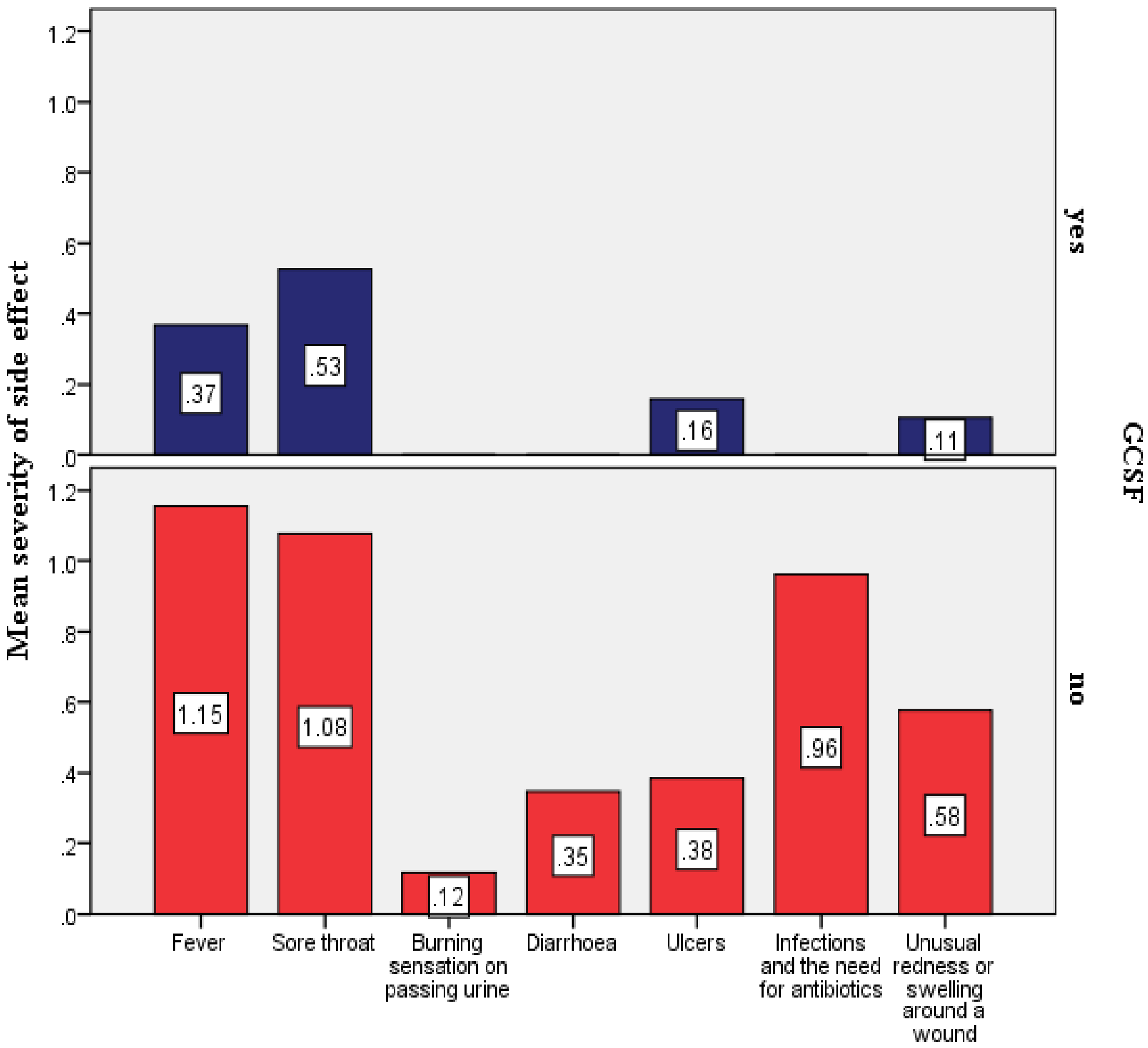


Figure 1. Mean severity of symptoms indicating the presence of an infection in patients who received G-CSF and those who did not.

CONCLUSION

G-CSF proved to be effective in preventing low neutrophil counts and neutropenia hospitalisation. None of the traits were statistically significant in predisposing a patient to suffer from neutropenia. Different chemotherapy regimens had a significant effect on the neutrophil counts.

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