

# REVIEW OF NEUTROPENIC FEVER AND MUCOSITIS IN PATIENTS UNDERGOING PERIPHERAL BLOOD STEM CELL TRANSPLANTATION

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## ▶ OBJECTIVES

- Peripheral blood stem cell transplantation (PBSCT) has reduced morbidity and mortality and is probably one of the most important of the autologous transplantations. It has significantly reduced the duration of the antibiotic therapy, the mucositis severity, the hospitalization length and the risk of the transplant procedure itself which results in a faster recovery.
- The goal is to describe the complications, neutropenic fever and mucositis, and evolution observed in hematological patients undergoing PBSCT.

## ▶ METHODS

- Observational, descriptive and retrospective study carried out during 2013 in a 500 bed university hospital. All patients undergoing a PBSCT have been included in the study.
- Two different groups were established, depending on the administered conditioning regimen, depending on the usual clinical practice.
  - Group A:** Patients with recurrent or refractory non-Hodgkin lymphoma (NHL) or recurrent or refractory Hodgkin lymphoma (HL) treated with: BCNU, etoposide and cytosine arabinoside and melphalan (BEAM).
  - Group B:** Patients with multiple myeloma treated with melphalan.
- Collected data included: sex, age, types of conditioning regimen, NF and mucositis during the bone marrow aplasia phase, as well as the patients' situation three months after the PBSCT.

## ▶ RESULTS

- During the bone marrow aplasia phase patients presented neutropenic fever and mucositis (Table 1).
- Three months after the PBSCT, nine patients in group A presented complete response, two patients partial response, and one patient success. In group B, ten patients presented complete response and one patient partial response.

TABLE 1

	Number of patients Group A	Number of patients Group B
<b>1. Neutropenic fever</b>	10	11
<b>1.1. No microbiological isolation</b>	7	10
<b>1.1.1. Nonpersistent</b>	5	7
<b>1.1.2. Persistent</b>	2	3
<b>1.2. Microbiological isolation</b>	3	1
<b>1.2.1. Bacteremia</b>	2	1
<b>2. Mucositis</b>	11	9
<b>2.1. Require parenteral nutrition</b>	7	4

## ▶ CONCLUSIONS

- Most of the patients undergoing a PBSCT presented neutropenic fever and mucositis. Eight of which required an antimicrobiological treatment of high complexity and 11 required parenteral nutritional support.
- Three months after the PBSCT, the number of complete response in group B was superior than in group A.

## ▶ Acknowledgements

- I wish to acknowledge the help provided by the pharmacy members.