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Multiple myeloma in the ICU

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Keywords

Bone marrow transplantation, haematological patients, intensive care, mechanical ventilation, multiple myeloma, noninvasive mechanical ventilation, shock

Comments

Unfortunately this paper doesn't appear to add anything new to the identification of haematological patients who may benefit from the intensive therapy unit (ITU). Neutropaenia, vasopressor support and mechanical ventilation in haematological malignancies are associated with an appalling outcome in the ITU and this paper (which looks only at multiple myeloma (MM) patients) just confirms these previous findings. In other words the exact diagnosis for the haematological malignancy is irrelevant in selecting patients who might benefit from ITU support. The improved outcome in patients admitted after 1995 is most likely to be due to a change in either the haematologist's or intensivist's selection process for those patients who may benefit from ITU, since other recent studies have not shown similar benefits. Finally, noninvasive ventilation (NIV) may benefit some of these patients although it may just reflect a reduced severity of illness in this group. Further investigation is obviously warranted.

Introduction

Intensivists have been reluctant in the past to offer intensive care to patients with haematological malignancies since the outcome is so poor. Haematologists argue that new chemotherapy regimes along with autologous stem cell transplantation have improved life-expectancy and perhaps attitudes should be changing with regard to some of these malignancies.

Aims

To identify prognostic factors affecting mortality in MM patients admitted to the ITU.

Methods

Retrospective analysis of case notes from 75 consecutive MM patients admitted to a teaching hospital ITU between 1992 and 1998.

Results

Thirty day mortality was 57.2% (43 deaths) with 27.7% (37) occurring in the ITU. The mortality rate was 78% in patients requiring invasive mechanical ventilation. Univariate analysis revealed that neutropaenia on admission, requirement for vasopressor agents, and invasive mechanical ventilation were significantly associated with mortality, whereas NIV was not. In the multivariate analysis, female gender, invasive mechanical ventilation and vasopressor agents were independently associated with an increased mortality whereas ITU admission after 1995 and disease remission were not.

Discussion

The very poor outcome in patients with MM requiring the use of vasopressor agents or invasive mechanical ventilation is similar to that seen in previously reported studies. The very small number of patients (4) who required only NIV were alive at 30 days and this form of ventilation has been proposed for patients with cancer. Neutropaenia is known to significantly affect outcome but unfortunately, since only one of the neutropaenic patients in this study didn't require ventilation, firm conclusions can not be drawn (because of the lack of statistical power). The lower 30 day mortality in those admissions after 1995 may have been due to different patient selection criteria or new treatments, and the authors comment on the increased use of NIV after 1995.

References

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