SOHO ANNUAL MEETING 2024

Saftyey and efficacy of dexamethasone for prevention of engraftment syndrome in multiple myeloma patient undergoing ASCT:A single center experience

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INTRODUCTION

Engraftment syndrome (ES) encompasses a spectrum of clinical manifestations linked to neutrophil recovery following hematopoietic stem cell transplantation (HSCT). Prominent findings include non-infectious fever, rash, pulmonary infiltration, or edema, closely impacting HSCT outcomes.

AIM

This study aimed to evaluate the safety efficacy of corticosteroid prophylaxis in preventing the incidence and severity of ES following autologous stem cell transplantation (ASCT) in patients with multiple myeloma (MM).

METHOD

A cohort of 26 MM patients from the Bone Marrow Transplantation (BMT) unit at the Oncology Center, Mansoura University, Egypt, were assessed from June 2022 to June 2023. Patients received dexamethasone 4 mg twice daily (D+9 to D+13) following stem cell infusion. Evaluation parameters included time to neutrophil recovery, ES signs and symptoms, and duration of hospital admission.

RESULTS

The study enrolled 26 MM patients (69.2% males, 30.8% females) with a median age of 52 years (34-67 years). Majority (84%) were transplanted in very good partial response or better, while 15.4% were in partial response. Febrile neutropenia was observed in 14 patients (53%). Treatment was discontinued in one patient (3.9%) due to uncontrolled diabetes mellitus. Two patients (7.9%) experienced a mild form of symptoms possibly attributable to Engraftment Syndrome (ES), including diarrhea and skin rash. No instances of early mortality were recorded. Median time to engraftment was 10 days (9-15 days), and median duration of hospital stay was 17 days (12-30 days).

CONCLUSIONS

The prophylactic utilization of dexamethasone is correlated with a low incidence and reduced severity of Engraftment Syndrome (ES), coupled with a favorable safety profile.

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ACKNOWLEDGEMENTS

Special thanks to my BMT team, oncology center, Mansoura Faculty Of Medicine

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