Critical care escalation for treatment-refractory haematological malignancies

Treatment advances, particularly targeted immunological therapies, have improved the prognosis of patients with various haematological malignancies (Schnegg-Kaufmann et al, 2018; Turesson et al, 2018). Furthermore, intensive care unit mortality for haemato-oncological patients appears to have improved over the last decade (Azoulay et al, 2015). Such advances, alongside a lack of any consistent negative prognostic factors (Al-Zubaidi et al, 2018), have led to increasing critical care escalation for these patients (Ho et al, 2011; Azoulay et al, 2015). However, this makes it increasingly challenging to set appropriate ceilings of care for patients with refractory disease.

Background

A 59-year-old woman with IgG kappa multiple myeloma and performance status 2 presented to the emergency department with a large, symptomatic right-sided malignant pleural effusion, requiring chest drain insertion. She had recently finished a course of fourth (and final) line chemotherapy consisting of pamalidomide, cyclophosphamide and dexamethasone, without any disease response.

On the ward overnight, her condition deteriorated with worsening respiratory and renal function requiring organ support. The patient was non-verbal and did not have an advanced statement in place. No prognosis was documented in recent clinic letters. Her family were adamant she should be admitted to intensive care. The out-of-hours haematology consultant supported this but was reluctant to provide a definite prognosis before she had been reviewed by the haematology day team. The patient was accepted by the overnight intensive care unit consultant, and was intubated, ventilated and placed on renal replacement therapy, but she deteriorated and died several hours later.

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The case for admission

Rapid clinical deterioration requires swift decision making, as delayed intensive care unit escalation is associated with increased mortality (Azoulay et al, 2015). If there is no clearly-documented prognosis at the time of deterioration and a significant delay in obtaining such information, it can be difficult to deny patients access to higher levels of care. Other factors to consider include the patient's quality of life, performance status and documented or stated wishes.

The case for a palliative approach

Consideration of any haematological intensive care unit admission involves deciding whether there is a potentially reversible disease process that can be treated, or whether the clinical condition is a refractory terminal malignant event. In this case, a malignant pleural effusion in a treatment-refractory multiple myeloma patient might be considered a terminal disease-related event. A common difficulty in such a scenario is being able to confidently rule out a factor which might be compounding organ dysfunction (e.g. sepsis), which might add an element of reversibility to the overall clinical event.

The decision rests upon whether intensive care admission would prolong dying rather than supporting living. Admitting a patient to intensive care should always be carefully considered given the invasive and potentially distressing nature of procedures necessary for organ support, and the frequent need for sedatives which affect a patient's ability to communicate with loved ones. Appropriate use of finite resources must also be considered.

Conclusions and learning points

Treatment-refractory haemato-oncology patients are a uniquely challenging group and escalation to critical care requires prompt and informed decision making. The prognosis for these patients is highly variable. Patients can deteriorate rapidly, often without it being clear whether this is disease-related or not. Many patients are young with good performance statuses, and have responded to previous treatments, making family discussions difficult in terms of acceptance of the dying process.

This dilemma stresses the importance of early, clear and honest communication between the oncology team, critical care team, patient and family. Clinical deteriorations can often be anticipated, so multidisciplinary meetings with clear documentation and recording of decisions are vital for appropriate intensive care unit escalation. **BJHM**

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