End-stage liver disease: critical care escalation or palliative care

End-stage liver disease is a terminal diagnosis, for which transplantation is the only cure, an option possible in a minority. Patients present with complications requiring escalated care, including variceal haemorrhage, sepsis, hepatorenal syndrome or encephalopathy. Each time a decision must be made whether to intervene or accept the complication as a terminal event. Unless the patient has made an advance decision, the default is to preserve life.

A 64-year-old patient with non-alcoholic steatohepatitis-related cirrhosis presented with recurrent ascites. Cardiovascular risk precluded transplantation. Life expectancy was felt to be 3–6 months. Paracentesis-induced renal dysfunction (likely hepatorenal syndrome) had previously been treated successfully on the ward. On this occasion, the creatinine level rapidly rose to 399 umol/litre. Without guided fluid management or renal replacement therapy in a critical care environment, a fatal outcome appeared likely.

Case for critical care escalation

Data demonstrate improved short-term outcomes through early recognition and treatment of acute precipitants in critical care (Sauneuf et al, 2013). Despite numerous proposed prognostic scores, there is no standardized scoring system to predict outcomes, making it difficult to deny critical care based on available models. Literature supports initial unrestricted critical care escalation with re-calculation of prognostic scores at 48–72 hours to inform further therapeutic options (McPhail et al, 2015).

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Hepatorenal syndrome is usually fatal within 2 weeks without treatment. It is diagnosed in the absence of structural kidney disease, hypovolaemia or nephrotoxic influences, and is characterized by pre-existing portal hypertension with ascites, low urine sodium concentrations and poor response to fluid challenges. Early identification and guided fluid management with albumin and vasoconstrictors is the best treatment in the non-transplant group (Fede et al, 2012).

In the absence of advance decision making with patient and family, conversion to a palliative approach during the onset of a severe deterioration can come as a shock. Patients are acutely vulnerable, often with impaired mental capacity as a result of encephalopathy.

Case for ward-based care and palliation

When hepatorenal syndrome develops in end-stage liver disease (transplant excluded), transfer to critical care is usually clinically futile. Uncertainty around the clinical course in end-stage liver disease is a major barrier to anticipatory planning of palliation. Poonja et al (2014) found that just 11% of patients who had been declined a transplant were referred to palliative care services and only 28% of these had orders to limit resuscitation while 48% had subsequent critical care admission.

Use of resources is an important consideration, although it should not influence individual cases. The mean cost of hospitalization in the last year of life in patients with cirrhosis was £18 500, with the 'mean cost of the terminal admission' £9615 (Gola et al, 2015), compared to £4500 for patients whose terminal admission was in a hospice.

Outcome of current case

Discussion with the patient and family included prognosis, and escalating to critical care or changing focus to palliative care, with an expedited, supported discharge to home (preferred place of care if dying). They firmly believed that if more could be done, it should. The patient was transferred to critical care and invasive circulatory monitoring started.

Over 72 hours the patient's renal function improved. She was discharged 3 weeks later, following an advance decision that care would not be escalated beyond the ward during future admissions. There were three more arranged admissions for paracentesis, but on the third occasion her condition rapidly deteriorated and she died peacefully in hospital.

Conclusions

Data suggest unrestricted critical care management should take place in the initial 48 hours with re-assessment in this cohort of patients, but this should not preclude discussions about prognosis and should provide an opportunity to introduce palliative care and to make advance decisions regarding end-of-life care. In patients with end-stage liver disease deemed unsuitable for transplantation, the goal of care should be to address quality of life and symptom management and focus on support for both patient and family. **BJHM**

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