THERAPY

Early plasma exchange may be beneficial in diarrhea-associated hemolytic uremic syndrome

Starting daily plasma exchange soon after the onset of symptoms of diarrhea-associated hemolytic uremic syndrome (HUS) may ameliorate the course of the disease, according to a recent study.

Diarrhea-associated HUS is a life-threatening condition. However, its rarity, particularly in adults, has made studying this disease difficult. In May 2011, an

outbreak of diarrhea-associated HUS in Denmark provided Martin Tepel and colleagues with the opportunity to assess the benefit of plasma exchange in several cases at the same time.

Five patients presented with symptoms of diarrhea-associated HUS at a hospital in Denmark over 4 days in May 2011. The time between onset of gastrointestinal symptoms and admission to the nephrology department ranged from 2 days to 8 days. All patients received supportive therapy, and once the diagnosis had been made using stool culture and serological testing, patients were started on daily plasma exchange (for 3–6 days).

After plasma exchange, platelet count and glomerular filtration rate increased, lactate dehydrogenase concentration decreased and neurological status improved. Patients were discharged with a normal neurological status 5–8 days after starting plasma exchange. The researchers found that the shorter the time between

the onset of bloody diarrhea and initiation of plasma exchange, the greater the reduction in the concentration of lactate dehydrogenase. These results indicate that early plasma exchange could accelerate the healing of this disease. The Danish team suggest that bloody diarrhea could be used as a clinical marker of severe disease and the need to start plasma exchange.

Although this study shows that plasma exchange might be a successful therapy for diarrhea-associated HUS, these findings need to be verified in a randomized, controlled trial. However, the authors note that the rarity of the disease will make this difficult.

Claire Greenhill

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