Molecular adsorbent recirculating system treatment for acute liver failure

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The molecular adsorbent recirculating system (MARS) is used in the treatment of liver failure patients to enable either native liver recovery or as a bridging treatment to liver transplantation. A recent study from Finland suggests that MARS treatment is both less costly and more effective than standard medical therapy in acute liver failure patients.

Numerous studies have documented the favorable effects of MARS albumin dialysis treatment on clinical and laboratory parameters and survival in liver failure patients. However, to ensure that limited resources are utilized in an ethical manner, the subjective feelings of the patient in terms of health-related quality of life and costs should also be taken into account. So far, only a few small non-randomized studies have focused on the cost-utility and the health-related quality of life of MARS-treated acute-on-chronic liver failure patients. Currently, there are no studies on the health-related quality or cost-utility of MARS treatment in acute liver failure (ALF).

The Helsinki MARS-study group, led by liver and transplant surgeon Helena Isoniemi, investigated the cost-utility and health-related quality of life in 90 MARS-treated ALF patients. Comparisons were made with a similar historical control group treated in the same intensive care unit. The 3-year outcomes and number of liver transplantations were recorded and all direct liver disease-related health care costs accrued during 3.5 years were determined. The health-related quality of life (HRQoL) before and after MARS was measured by using the 15D instrument. The HRQoL, cost, and survival data were combined and the incremental

cost/quality-adjusted life year (QALY) ratio was calculated. This study is the first report evaluating the cost-utility of MARS treatment in ALF patients which will be published on May 14, 2010 in the World Journal of Gastroenterology.

More information: Kantola T, Mäklin S, Koivusalo AM, Räsänen P, Rissanen A, Roine R, Sintonen H, Höckerstedt K, Isoniemi H. Cost-utility of molecular adsorbent recirculating system treatment in acute liver failure. World J Gastroenterol 2010; 16(18): 2227-2234 www.wjgnet.com/1007-9327/full/v16/i18/2227.htm

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