ECLS in Infarct-Related Cardiogenic Shock

Extracorporeal life support (ECLS) is used frequently in treating infarct-related cardiogenic shock, but there is a lack of evidence regarding its impact on mortality.

In a multicentre trial involving patients with acute myocardial infarction complicated by cardiogenic shock and planned early revascularisation, participants were randomly assigned to receive ECLS along with standard medical treatment (ECLS group) or standard medical treatment alone (control group). The primary outcome of the study was all-cause mortality at 30 days. Safety outcomes included bleeding, stroke, and peripheral vascular complications that required intervention or surgery.

The study included 420 patients with acute myocardial infarction complicated by cardiogenic shock and planned early revascularisation; 417 patients were included in the final analysis. At 30 days, there was no significant difference in all-cause mortality between the two groups: 47.8% in the ECLS group and 49.0% in the control group. The duration of mechanical ventilation was slightly longer in the ECLS group (median 7 days) compared to the control group (median 5 days).

Regarding safety outcomes, moderate or severe bleeding occurred in 23.4% of patients in the ECLS group compared to 9.6% in the control group. Peripheral vascular complications requiring intervention were also more common in the ECLS group (11.0%) compared to the control group (3.8%).

These findings show that among patients with acute myocardial infarction complicated by cardiogenic shock and planned early revascularisation, ECLS therapy did not reduce the risk of death from any cause at the 30-day follow-up compared to those who received medical treatment alone.

Source: NEJM
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