急性心原性肺水腫における非侵襲的呼吸補助

3CPOトライアルの結果、急性心原性肺水腫患者への非侵襲的呼吸補助は回復時期を早めるが死亡率は変化させないことが示唆された

The 3CPO trial suggests that noninvasive ventilation of patients with acute cardiogenic pulmonary edema shortens recovery period but does not change mortality

3CPOトライアルの結果、急性心原性肺水腫患者への非侵襲的呼吸補助は初期回復時期を早めるが死亡率は変化させないことが示唆された、とESCで発表された。3年間にわたり英国の患者1,069人が登録され、標準的な酸素投与（367人）、非侵襲的持続的気道内陽圧呼換気（346人）、または非侵襲的間歇的陽圧換気（356人）のいずれかを受けた。標準的な酸素投与と比較し非侵襲的陽圧換気はいずれも、呼吸数および心拍数の低下およびアシドーシスの改善が早かった。患者の苦痛は少なかったが、死亡率は標準的な治療を受けた患者と同等であった。2つの非侵襲的な換気法の結果に差はなかった。

Full Text

The 3CPO trial suggests that noninvasive ventilation of patients with acute cardiogenic pulmonary edema shortens the initial recovery period but does not change mortality, according to a presentation at the annual meeting of the European Society of Cardiology.

Numerous small studies of 20 to 50 patients have suggested that increasing oxygen pressure may help improve outcome. Noninvasive ventilation can be performed by using continuous positive pressure ventilation or intermittent positive pressure ventilation. The trial was designed to see whether noninvasive ventilation can improve survival and which method should be used. Since the study started, several papers have suggested that the total evidence to date indicates noninvasive ventilation should halve the death rate.

The 3CPO trial, led by Dr Alasdair Gray, was undertaken over three years in 26 Emergency Departments across the UK and recruited over 1,000 patients. At the close of the trial, 1,069 patients had been enrolled and received standard oxygen (367 patients), continuous positive airway pressure (346 patients) or noninvasive intermittent positive pressure ventilation (356 patients).

Compared with standard oxygen treatment, both forms of noninvasive ventilation produced better rates of recovery with a more rapid fall in respiration and heart rate as well as a quicker resolution of acidosis. However, the death rate did not differ. Method of noninvasive ventilation did not change responses.

This first major large-scale clinical trial demonstrated that noninvasive ventilation is a useful treatment to alleviate distress and improve breathing, but it does not improve subsequent chances of survival.

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