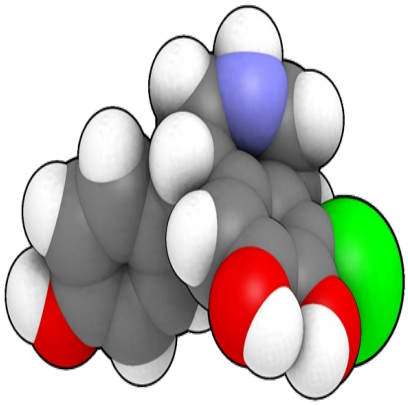
ICU
MANAGEMENT & PRACTICE

ESICM 2014: Fenoldopam After Cardiac Surgery Does Not Reduce Need for Dialysis



According to a study being presented at the European Society of Intensive Care Medicine (ESICM) annual congress in Barcelona, infusion of the antihypertensive agent fenoldopam in patients with acute kidney injury after cardiac surgery does not reduce the need for renal replacement therapy (dialysis) or risk of death at 30 days. The administration of the drug was shown to be associated with an increased rate of abnormally low blood pressure.

These findings are interesting since over one million patients in the United States and Europe undergo cardiac surgery every year. A major complication in a large number of these cases is acute kidney injury. Over the years, fenoldopam has been used widely for the prevention and treatment of acute kidney injury with apparent favourable results. It is widely used postoperatively and intravenously to treat a hypertensive crisis. However, since there are no definitive trials that show evidence of its utility, this study provides insight as to whether or not fenoldopam should be prescribed after cardiac surgery.

The study was conducted by Tiziana Bove, MD, and colleagues at the IRCCS San Raffaele Scientific Institute in Milan, Italy, from March 2008 to April 2013. It involved 19 cardiovascular intensive care units throughout Italy, and was supported by a grant from the Italian Ministry of Health. 667 patients who were admitted to intensive care units with early acute kidney injury after cardiac surgery were included. 338 patients received fenoldopam while 329 patients received placebo.

The results showed that acute kidney injury progressed to treatment with dialysis in 20 percent of patients in the fenoldopam group and in 18 percent of patients in the placebo group. The 30 day mortality rate was 23 percent in the fenoldopam group and 22 percent in the placebo group. 26 percent of patients experienced hypotension in the fenoldopam group as compared to 15 percent in the placebo group.

The study authors conclude, “Given the cost of fenoldopam, the lack of effectiveness, and the increased incidence of hypotension, the use of this agent for renal protection in these patients is not justified.”

Source: JAMA

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