OBJECTIVES To evaluate the safety and efficacy of Shenfu injection in prevention of contrast-induced nephropathy (CIN) in acute coronary syndrome (ACS) patients undergoing percutaneous coronary intervention (PCI).

METHODS A single-center prospective randomized controlled trial was performed. 148 ACS patients undergoing PCI were divided randomly into groups control (n = 74), receiving only 0.9% sodium chloride solution for routine hydration and intervention (n = 74, based on routine hydration receiving Shenfu injection). Serum creatinine, BUN and urinary Neutrophil gelatinase associated lipocalin (NGAL) were checked at start, 1 day and 2 days after PCI.

RESULTS Among the 148 patients studied, 14 (9.4%) experienced CIN occurred in 2.7% of the Shenfu Injection group. No serious adverse effects were observed in all patients. There is no difference between the level of Scr and eGFR level in the two groups, but in 12h later after PCI, the urinary NGAL level in control group was significantly higher than in Shenfu Injection group (P < 0.05).

CONCLUSIONS Hydration combined with Shenfu Injection is more effective than hydration with sodium chloride in the prevention of CIN in ACS patients undergoing PCI.

OBJECTIVES This study aimed to investigate clinical and perioperative characteristics of patients ≥75 years old undergoing percutaneous coronary intervention (PCI) and evaluate risk factors related to short-term mortality after PCI procedure in this specific group of patients.