Effect of sublingual administration of nifedipine and venous injection of urapidil on hypertension emergency

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View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To evaluate the clinical efficacy and safety of sublingual administration of nifedipine and intravenous injection of urapidil in the treatment of hypertensive emergency. Methods: A total of 195 patients with hypertensive emergency admitted from August 2008 to May 2011 were selected, among whom 125 were treated with bilingual administration of nifedipine and 70 with intravenous injection of urapidil. The changes of blood pressure (systolic blood pressure and diastolic blood pressure) and heart rate at the time before injection and 5 min, 10 min, 30 min, 60 min, 120 min, 180 min after administration were observed. Results: In urapidil group, the blood pressure significantly dropped 5 min after injection ($P<0.05$), and reached and maintained the maximal peak 30 min after injection. The total efficacy was 92.9%, and no change of heart rate was observed. In nifedipine group, the blood pressure started to drop 5 min after injection ($P<0.05$), and reached the maximal peak 30 min after injection, but began to elevate at 3 h. The total efficacy was 77.6%, and heart rate was increased as decreasing blood pressure.

Conclusions: Intravenous injection of urapidil shows better therapeutic effect than sublingual administration of nifedipine and is more suitable for the treatment of hypertensive emergency.

[KEY WORDS] Nifedipine; Urapidil; Hypertensive emergency