

Abstract

Objective: Hypertensive emergencies are potentially life threatening and require prompt blood pressure control with intravenous agents. Preparation of intravenous infusions is time consuming. Usefulness of sublingual nitroglycerin in this setting is not known. We aimed to assess the benefit of sublingual nitroglycerin as a bridge to IV therapy. In a clinical audit in an emergency department, patients presenting with hypertensive emergencies requiring intravenous nitroglycerin were administered single spray of sublingual nitroglycerin awaiting commencement of intravenous infusion. Blood pressure was monitored every 5 min to observe the degree and speed of reduction.

Results: Thirty-seven patients met the selection criteria. Mean age was 65.8 years (SD 7.04), and 29 were males (88.4%). Mean values of systolic, diastolic and mean blood pressures on admission were 217, 137, 163 mmHg. At 5 and 10 min after sublingual nitroglycerin, mean reduction of mean arterial blood pressure by 12.3 and 16.3% was achieved. Only 2 patients (5.4%) showed an overcorrection of blood pressure. Minimum of 15 min were required to set up a nitroglycerin intravenous infusion. Sublingual nitroglycerin spray allows rapid blood pressure control in hypertensive emergencies and is a useful bridge during the time to prepare intravenous infusion.