NEW STRATEGY FOR TREATING ACUTE CAPTOPRIL OVERDOSE-INDUCED HYPOTENSION: NALOXONE AS AN ANTIDOTE IN REFRACTORY CASES: CLINICAL STUDY

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Abstract:

The current study was carried out to study the acute captopril-induced hypotension and to evaluate the possibility to use naloxone as antidote in the refractory cases in human aiming at establishment of a new strategy for treating such cases. Fifty eight patients, of both sexes aging 3-26 years were admitted at El-Minia Poisoning Control Center (PCC) during the period from 1-7-2003 to 3-12-2004 presented with acute captopril overdose (1000-1500mg) with a delay time 2-3 hours post-ingestion and presented with severe hypotension (Systolic: 65.5 ± 2.5/ Diastolic: 41 ± 2), underwent the current study. Treatment of such cases was first started with fluid challenge with physiologic saline (1.5-2 L./4h). If the cases was not improving within 4 hours, vasopressor, dopamine was administrated (2-5mcg/kg/min and then titrated to 10mcg/kg/min). If the later failed in correcting hypotension within 4 hours, the case was considered refractory to this line of treatment and naloxone was given (1.6-2.4mg) as intravenous bolus with continuous intravenous infusion of the same drug (0.4/h). to avoid repeat bolus administration for 4 hours. The last drug to be administrated if no response to naloxone within 4 hours was epinephrine infusion (0.1-0.2mcg/kg/h). The results of the current study revealed that among the 58 studied patients, only 24 patients (41.38%) responded to fluid therapy along, 19 of the remaining 34 patients (32.76%) responded to vasopressor administration 9 of the remaining 15 patients (15.52%) responded to naloxone administration, and the remaining 6 patients responded to epinephrine (10.34%). It could be concluded that naloxone is an effective drug and should be utilized in treating prolonged captopril-induced hypotension in human which is refractory to fluid and vasopressor therapy.

Keywords:

Strategy - Captopril overdose - Naloxone

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