

# Title: LOCAL EXPERIENCE WITH HEMOPERFUSION IN ACUTE INTOXICATIONS

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**Background:** The acute intoxications at Ecuador are important causes of intensive care unit (ICU) inpatients; 5% of executed dialytic therapies were by acute poisoning. The Hemoperfusion (HP) with resin cartridge offers advantages to clear toxins with medium molecular weight, and high bound proteins. Nowadays, the evidence is poor showing the use of this technic for acute intoxications treatment.

**Objective:** To determinate the most causes of endogenous and exogenous intoxications that required HP in ICU inpatients. Document outcomes and response in the setting of ingestion of a toxic substance, the initiation of HP therapy and mortality.

**Methods:** Prospective cohort study in poisoning patients with HP indications. The patients were under HP treatment by 2 to 4 hours, Qb: 200 ml/min, with MG-150 - 250 or Jafron HA 230 resin cartridge; according availability. In organophosphate poisoning 2 sessions every 12 hours at least, in another intoxications the sessions number were performed in clinical response correlation.

**Results:** 59 patients were in HP after of general treatment for detoxifications, average age 27,85 yo (IC 95% 24,34 – 31,35), mortality 6,8%. The main causes of toxicity were Carbamazepine 12n (20,3%), Organophosphate 11n (18,6%), Paraquat 10n (16,9%), (**Graph 1**). APACHE 2 score was 17,83 (CI 95% 15,79 – 19,87) SOFA score was 8,73 (CI 95% 7,36 – 10,10). Result resume and variables characteristics are displayed in **Table 1**.

**Conclusions:** The present study shows the benefits in patients who receive HP, we recommend starting hemoperfusion as early as possible in intoxicated patients. Mortality (6,8%) occurred in patients who delayed receiving treatment with HP (media 46,5h). HP treatment decrease the stance either in ICU and Mechanical ventilation dependence, therefore the hospitalization cost is reduced. The HP is a suitable technic for effective treatment in poisoning patients; ostensibly decreasing mortality for all toxic (**Table 2**).

	SURVIVORS	DEAD	p
Masc n (%)	29 (49,2%)	3 (5,1%)	
Fem n (%)	26 (44,1%)	1 (1,7%)	0,388
Age (media)(SD)	26,68 (±13,165)	42,5 (±8,18)	<b>0,023</b>
ICU days (media)	3,71 (±3,62)	7,25 (±4,42)	0,068
t Ingest/ Treatment	28,25 (±11,96)	46,5 (±30,78)	<b>0,012</b>
IMV days (media)	1,33 (±1,59)	4,25 (±1,25)	<b>0,001</b>

	SURVIVORS (n)	DEAD (n)
CARBAMAZEPINE	12	0
ORGANOPHOSPHATED	10	1
PARAQUAT	8	2
VARIOUS TOXICS	6	0
VALPROIC ACID	5	0
RHABDOMYOLYSIS	3	1
LIVER FAILURE	3	0
UNKNOWN	3	0
OTHERS	3	0
WHIT PHOSPHORUS	2	0

