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ABSTRACTS

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244. α-Amanitin poisoning: Outcome in 242 patients treated with the Pavia mushroom protocol (N-acetylcysteine, forced diuresis and multiple-dose activated charcoal)

Valeria M Petrolini, Sarah Vecchio, Marta Crevani, Eleonora Buscaglia, Davide Lonati, Andrea Giampreti, Teresa Coccini, Elisa Roda, Davide Acerbi, Monia Aloise, Francesca Chiara, Carlo A Locatelli

Pavia Poison Control Centre - National Toxicology Information Centre, IRCCS Maugeri Foundation, Pavia, Italy

Objective: To evaluate the clinical course and outcome of patients with α-amanitin poisoning confirmed through urinary detection of the toxin and treated with N-acetylcysteine (NAC), forced diuresis (FD), and multiple-dose activated charcoal (MDAC).
Methods: We retrospectively (January 2002–December 2012) reviewed all patients (i) admitted to emergency departments all over Italy and referred to Pavia Poison Control Centre, with (ii) gastrointestinal symptoms after at least 6 hours from uncontrolled mushroom consumption, and with (iii) laboratory confirmation of urinary α-amanitin toxic levels (≥5 ng/mL). Specific treatment included NAC (intravenous 150 mg/kg followed by 300 mg/kg/day until 48 hours after mushroom ingestion in patients without hepatitis and as long as ALT < 200 UI/L in patients with hepatic damage), FD until negative urinary α-amanitin levels, and MDAC (2-5 g/h) until 96 hours. Hepatic damage was defined using ALT acme during hospitalization: absent (ALT < 49 UI/L), mild (ALT 50–199 UI/L), moderate (ALT 200–2000 UI/L), and severe (ALT > 2000 UI/L). Outcome was evaluated as absence of hepatitis, fully recovered, organ transplantation, and death.
Results: Two hundred and forty-two patients (mean age, 53 ± 19 years) were included. At first medical evaluation 167/242 (69%), patients presented normal hepatic function (group 0), whereas 31/242 (12.81%), 37/242 (15.29%), and 7/242 (2.89%) presented mild (group 1), moderate (group 2), and severe (group 3) hepatic damage, respectively. In group 0, 83/167 patients (49.7%) did not develop hepatitis. Among the 75 patients that presented hepatic damage at admission (groups 1, 2 and 3), 32 (42.66%) did not worsen after the treatment was started, while for 43 (57.33%) their hepatic damage worsened. Overall for 242 patients the urinary α-amanitin mean value was 39.21 ± 30.67 ng/mL. NAC treatment was started on average 28.08 ± 14.41 hours after mushroom ingestion and was performed until normalization of hepatic function. No adverse reactions were registered. The overall unfavorable outcome (considering both death and liver transplantation) was 4.1% (10/242); only 5 fatal cases (2%) were registered.
Conclusion: The observed mortality rate is lower than in other published case series that, moreover, did not consider the urinary α-amanitin level among the inclusion criteria.[1,2]

References

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