**Objective:** The dosage of urinary amatoxin was shown to be a useful diagnostic tool to confirm A. phalloides intoxication. The threshold of the analytical sensitivity is 0.22 ng/ml, with a functional sensitivity of 1.5 ng/ml (1). Nevertheless, predictive and diagnostic value of the level of amanitin detected is still uncertain (2, 3).

**Methods:** During 2010, in the National Milan Poison Control Centre a study of the reliability of urinary amanitin analysis was carried out. 45 patients were diagnosed with amatoxin poisoning because history of mushroom ingestion, severe gastroenteritis and mycological identification for Amanita species. Urine sample was collected, in order to perform the amanitin Enzyme-linked Immunosorbent Assay (ELISA) test.

**Results:** Urinary amanitin dosages ranged between 3 ng/mL and 243 ng/mL. Out of these, 28 (62%) patients developed a severe hepatitis, while a total of 11 showed signs of mild to moderate hepatic involvement. Even though the remaining six patients had positive amanitin dosages (4 to 25 ng/mL), but didn’t showed hepatic alterations. The analysis of ROC (Receiver Operating Characteristic) curve, related to the accuracy of urinary amanitin in amatoxin-induced hepatitis diagnosis, was performed; specificity and sensitivity was calculated for each measured value (4). In our population the best diagnostic performance was achieved by using 5 ng/mL as a cut-off value.

**Conclusions:** Our results suggest to use >5 ng/mL as the value of urinary amanitin positivity. The six patients showing amanitin urinary level >10 ng/mL with any signs of liver impairment cast a shadow on the specificity of the test. The dosage of urinary amanitin is a useful tool for the diagnosis of intoxication by Amatoxin. However, test results must always be interpreted in an entire diagnostic work-up, according to the clinical history of the patient and supported by the consult of a toxicologist.

**References:**