

Use of CytoSorb in a potential mushroom's intoxication due to Amanita Proxima



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Background

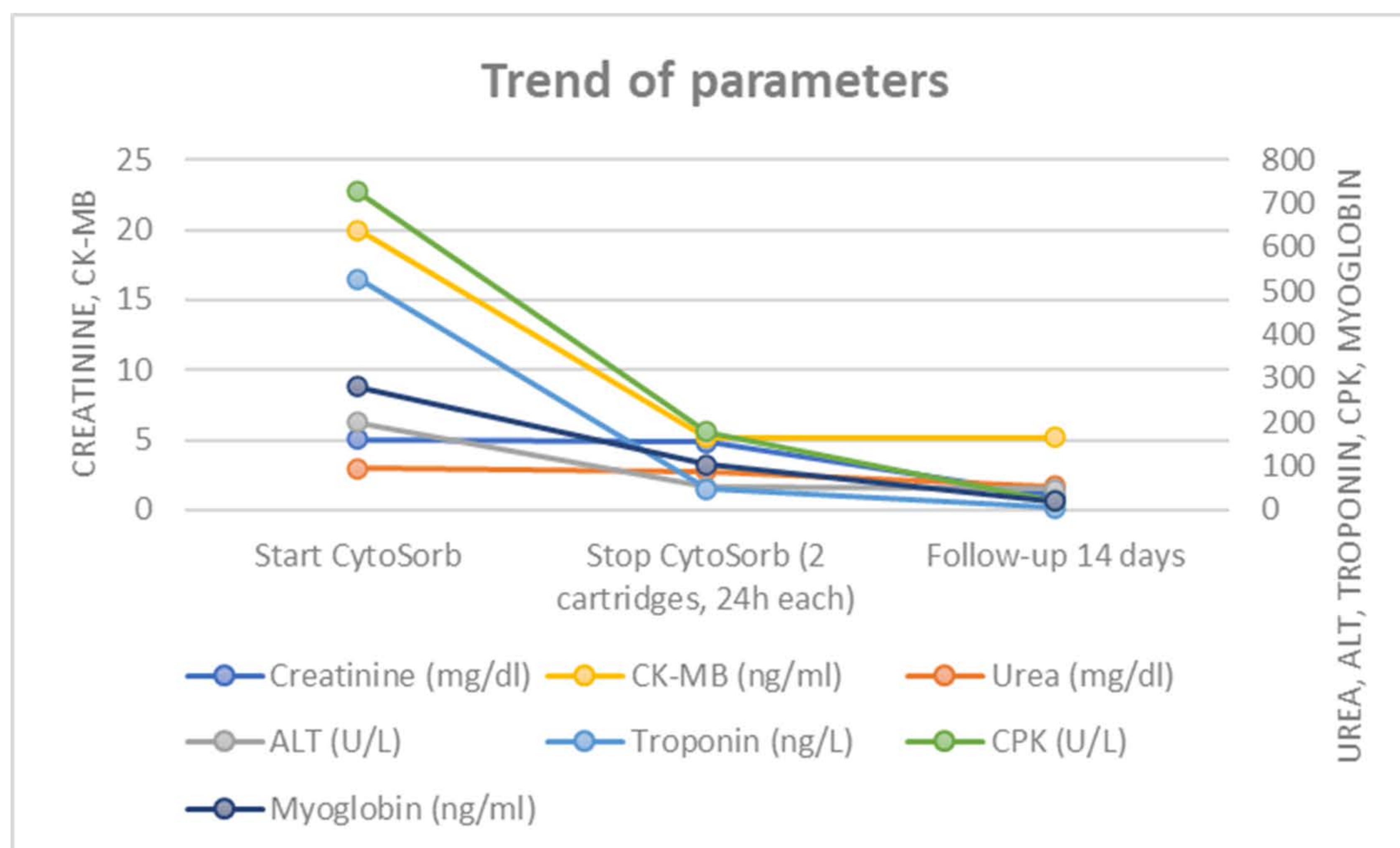
Mushroom intoxication is an environmental health problem caused by the ingestion of some poisoning mushrooms, such as those of the genus Amanita. In particular, Amanita Proxima is a well-known cause of nephrotoxicity due to the norleucine toxin, an allenic and non-protein thermostable amino acid, potentially able to determine a severe clinical syndrome.

Case Presentation

Here, we describe the case of a 53-year-old female patient who was admitted to our hospital in with vomiting, diarrhea and altered mental state, in severe hypotension and anuric. The patient had, unknowingly, ingested poisonous mushrooms belonging to the genus Amanita Proxima. Our hypothesis was then confirmed by the Poison Control Centre, which we had promptly contacted. After an initial fluid replacement therapy to rebalance the metabolic acidosis, no further clinical improvement occurred. Due to the persistence of anuria and Acute Renal Failure, we started a Continuous Renal Replacement Therapy (CRRT) in combination with 2 cycles of 24 hours each of CytoSorb blood purification therapy. The adsorption cartridge was used post-hemofilter in combination with CRRT (PRISMAFLEX ST 150 - BAXTER) in CVVHD mode with a blood flow rate of 100 ml/min, dialysate flow rate of 1000 ml/min, no ultrafiltration and a standard anticoagulation with citrate.

Results

After 48 hours of CVVHD in combination with 2 consecutive cycles of blood purification with CytoSorb we achieved a stabilization of the clinical picture with a normalization of most of the metabolic and hemodynamic parameters. Due to AKI persistence, we decided to continue with three other sessions of CVVHD, followed by a complete resolution of kidney failure.



Conclusion

The combination of CVVHD and CytoSorb therapy in a case of mushrooms intoxication was associated to a marked stabilization of many metabolic parameters. Although the direct adsorption of the toxin responsible for the norleucine syndrome is not so clear and could not be demonstrated, the use of CytoSorb in combination to the CRRT is a potential adjuvant therapy to rapidly stabilize the clinical picture and avoid chronic consequences.