Abstract:
Renal failure as a consequence of eating mushrooms has been reported repeatedly after ingestion of webcaps of the Cortinarius orellanus group. But mushrooms of the genus Amanita can also cause renal failure: Amanita smithiana (North America) and Amanita proxima (Mediterranean area). Here, we discuss poisonings caused by other white amanitas. A German and--independently--two Portuguese patients reported the ingestion of completely white mushrooms with ring. Similar to intoxications with A. smithiana or A. proxima, the clinical picture was characterized by nausea and vomiting 10-12 h after ingestion, severe acute renal failure and mild hepatitis. Renal biopsy showed acute interstitial nephritis and tubular necrosis. Two patients were given temporary haemodialysis. All have fully recovered their renal function. Poisonings caused by mushrooms containing the toxin of A. smithiana were suspected. We tested 20 Amanita species for the presence of this toxin. Thin layer chromatography was applied to detect A. smithiana nephrotoxin in herbarium specimens using authentic material of A. smithiana as reference. A. smithiana toxin could be detected in Amanita boudieri, Amanita gracilior and in Amanita echinocephala. A. boudieri was collected by the Portuguese patients. A. echinocephala is the only nephrotoxic Amanita growing North of
the Alps and is suspected to be the cause of renal failure in the German patient. No A. smithiana toxin was detectable in the nephrototoxic A. proxima. A. boudieri, A. gracilior and A. echinocephala are nephrototoxic. These intoxications are clinically similar to that of A. smithiana, with acute reversible renal failure and mild hepatitis but are different in their clinical picture from Orellanus syndrome characterized by a delayed onset of severe and often irreversible renal failure.