

ACUTE POISONING WITH TRICHOLOMA EQUESTRE AS CONSEQUENCE OF SIMVASTATIN-MUSHROOM INTERACTION

Horn U (1), Prasa D (1), Roth C (2), Hentschel H (1). 1. *Poisons Information Centre, Erfurt, Germany*; 2. *Rudolf Virchow Hospital, Glauchau, Germany*

Objective: The incidence of myopathy and/or rhabdomyolysis is less than 0.1% among patients treated with simvastatin. On the other hand, rhabdomyolysis was described as a life-threatening consequence after repeated ingestion of *Tricholoma equestre* in 12 patients in France (1) and in two patients in Poland (2). We report a case after consumption of these mushrooms under simvastatin treatment. **Case report:** A 71-year-old male patient suffering from diabetes type II, hyperlipaemia, hypertension, and chronic ischaemic heart disease has been treated with simvastatin for six months. Occasionally, he had reported on muscular pain. In the past he had eaten *T. equestre* in large quantities without problems. He developed myalgia, fatigue, muscle weakness, and profuse sweating after ingestion of mushroom meals twice daily on six consecutive days. Creatine phosphokinase (maximum 4,934 U/L) and myoglobin (maximum 3,976 ng/ml) as well as aspartate aminotransferase (330 U/L) and alanine aminotransferase (209 U/L) were increased. Simvastatin treatment was discontinued immediately. Alkaline diuresis was administered to prevent myoglobin precipitation in renal tubules. Symptoms disappeared and pathological laboratory findings decreased but not fully normalised under this treatment within ten days. **Conclusion:** The underlying mechanism of toxic interaction still remains unknown. Possibly, an increased simvastatin plasma level may be the result of increased absorption and/or of inhibition of cytochrome P450 3A4-mediated metabolism resembling the interaction of simvastatin and grapefruit. Otherwise, a direct combined cytotoxic action may be targeted on muscle fibres and liver cells. Although a recent study could not demonstrate toxic effects in patients treated with different statins and fibrates consuming large quantities of *T. equestre* (between 300 g and 1200 g for four consecutive days) simultaneously (3), we discourage from ingestion of *T. equestre* in patients receiving HMG-CoA-reductase inhibitors.

References: 1. Bedry R, Baudrimont I, Deffieux G, Creppy EE, Pomies JP, Ragnaud JM, Dupon M, Neau D, Gabinski C, De Witte S, Chapalain JC, Godeau P, Beylot J. Wild-mushroom intoxication as a cause of rhabdomyolysis. *N Engl J Med* 2001;**345**(11):798-802. 2. Chodorowski Z, Waldman W, Sein Anand J. Acute poisoning with *Tricholoma equestre*. *Przegl Lek* 2002;**59**(4-5):386-387. 3. Chodorowski Z, Sein Anand J, Madalinski M, Rutkowski B, Cylkowska B, Rutkowski P, Wisniewski M, Hajduk A. Enzymatic examination of potential interaction between statins or fibrates and consumed *Tricholoma equestre*. *Przegl Lek* 2005;**62**(6):468-470.