

Yew can be really poisonous to You

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Objective: To show that ingestion of taxus can result in the development of significant morbidity with seizures, dizziness, cardiac arrhythmias, respiratory distress.

Methods: Retrospektive study of all cases with ingestion of yew in 2 poisons centers over a ten months period from January until October 2009. The severity of the intoxication was notified according to the poisoning severity score.

Results: In poisons centre A 215 exposures with taxus were registered, 57 of them with leaves, twigs or preparations of tea. 3 patients developed severe symptoms (5%). In poisons centre B 113 cases were registered; 6 patients with severe symptoms (5%). To illustrate symptoms and treatment of severe yew intoxications two cases are presented.

Case report Patient A: 16 year old girl was found unconscious with no measurable blood pressure. There was no history of severe neurological or cardiac diseases. Immediate start with cardiopulmonary resuscitation (duration 2 hours and 45 minutes). Administration of epinephrine, antiarrhythmic drugs and lysis therapy. Due to severe cardiac dysrhythmias, extra corporal membrane oxygenation, placement of pacemaker and mild hypothermia to 33°C was started. The interrogation of the parents resulted in the discovery of taxus leaves and tea under the bed of the girl. Decontamination by gastroscopy 6 hours after the ingestion with the removal of many taxus leaves. One week after this suicidal ingestion the patient was stable and psychiatric treatment could be initiated.

Case report Patient B: 59-year-old woman deliberately drank tea from taxus leaves with alcohol. She was found unconscious and bradycardic after a bicycle accident. Decontamination was started 2 hours after the ingestion by gastroscopy and many taxus leaves could be removed; activated charcoal was administered thereafter. Due to cardiac arrest cardiopulmonary resuscitation was started. Persisting severe dysrhythmias were treated by defibrillation, pacemaker and lidocain. Finally, a successful stabilization of the cardiac rhythm was achieved and the patient could be discharged to the psychiatric department.

Conclusion: The ingestion of taxus leaves or the extract of yew plants can result in life threatening symptoms. Decontamination with gastroscopy and administration of activated charcoal can be useful after several hours. In the case of cardiac dysrhythmias lidocain can be given. Resuscitation should be practiced longer than usually.



Fig. 1



Fig. 2

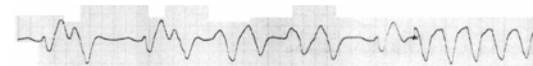


Fig. 3 ECG 1

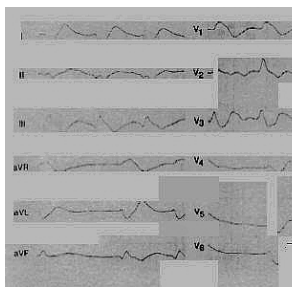


Fig. 4 ECG 2

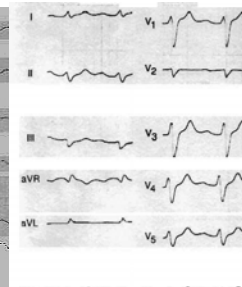


Fig. 5 ECG 3

Fig. 1 and 2: Taxus baccata: All parts with the exception of the fleshy red aril (berry) contain at least 10 pseudo-alkaloids of which taxine A and B are most important (Lampe, Fagerstrom, 1968). Taxine B is more cardiotoxic than taxine A. Taxine B is inotropic, changes AV-conduction and increases QRS duration reducing heart rate via a II°/III° AV-conduction block (Wilson et al, 2001; Burke et al, 1979). Biochemically taxines appear to be calcium and sodium ion channel blockers with activities similar to antiarrhythmic drugs (Wilson et al, 2001).

Fig. 3: ECG 1: On the left two bizarre QRS-complexes with a duration of 320 ms. (von Dach, Streuli, 1988).

Fig. 4: ECG 2: Improvement of QRS-complex duration to 260 ms, after administration of lidocain (von Dach, Streuli, 1988).

Fig. 5: ECG 3: After 7 hours of continuous intravenous lidocain administration and placement of pacemaker, sinus rhythm, heart rate 90/min. QRS-complex of 130 ms (von Dach, Streuli, 1988).



Fig. 6

Fig.6: Leaves of taxus baccata identified in the duodenum. (Pietsch et al, 2007).

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