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Titel des Beitrags: Eight cases of fatal and non-fatal poisoning with Taxus baccata.

Abstract: This paper describes two fatalities, three non-fatal intentional and three accidental oral ingestions of yew (Taxus baccata) leaves. In all cases the post-mortem external examinations showed no signs of violence. Internal examinations revealed small green, needle-like particles on the tongue, in the esophagus and in the stomach. Yew leaves were also identified in the stomach contents, whereas Taxus leaves were cut into small pieces and then ingested in one case. The analytical method used was based on a liquid-liquid-extraction under alkaline conditions followed by LC-MS/MS analysis (QTRAP 5500). Chromatographic separation was achieved by HPLC on a Kinetex C18 2.6μ (100×3) mm. The analytical method allows the simultaneous identification and quantification of the commercially available yew alkaloids taxoids (m/z): paclitaxel (854.2->105.0/286.1), 10-deacetyltaxol (10-DAT: 812.2-->105.0/286.1), baccatin III (BAC III: 604.0-->105.0/327.0), 10-deacetylbaccatin III (10-DAB III: 562.1-->105.0/327.0), cephalomannine [taxol B] (562.1->105.0/327.0) and of 3,5-dimethoxyphenol (3,5-DMP: 155.0->111.9/122.9) also encompassing the qualitative analysis of the alkaloidal diterpenoids (Q1-->194.0/107.0): reference mass spectra obtained from a yew leaves extract: monoacetyltaxine (MAT: 568.4), taxine B (584.2), monohydroxydiacetyltaxine (MHDAT: 572.3).
626.4), triacetyltaxine (TAT: 652.4), monohydroxytriacetyltaxine (MHTAT: 668.4). In both fatalities, paclitaxel, 10-DAT and cephalomannine were not identified in urine, cardiac and femoral blood but all taxoids and 3,5-DMP were present in stomach content and excreted into the bile. In urine, highest 3,5-DMP concentration was 7500 µg/L and 23,000 µg/L after enzymatic hydrolysis, respectively. In intentional and accidental poisonings, when electrocardiogram (ECG) examinations revealed ventricular tachycardia and/or prolonged QRS intervals, taxines were identified in plasma/serum, even after the ingestion of a few number of yew leaves, when 3,5-dimethoxyphenol was not even found. According to the data from one near-fatal intentional poisoning, elimination half-life of MAT, TAXIN B, MHDAT and MHTAT in serum was calculated with 11-13 h and taxines were detected up to t=+122 h post-ingestion of approximately two handfuls of yew leaves.