Gastroscopic bezoar removal in acute quetiapine poisoning

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Objective

Acute poisoning with sustained release preparations of quetiapine (SR) containing hypromellose may lead to a prolonged clinical course of the poisoning due to pharmacobezoars [1]. We report two cases with gastric pharmacobezoars, removed by water jet lavage under endoscopic control.

Case reports

Case 1: A 32 year-old male required mechanical ventilation and vasopressor support after an overdose with unknown amounts of quetiapine (SR), sertraline, lorazepam, and lithiumcarbonate. Suspecting a bezoar formation, endoscopy was performed 25.5 hours after admission. A white mass adhering to the gastric mucosa was not removable by mechanical efforts. Endoscopic water-jet lavage using a roller pump (Endo-Washer®) was initiated. A total of 4.8 g quetiapine were recovered from the lavage-fluid. After endoscopy the patient received MDAC (two administrations, 50 g each). Due to the additional ingestion of lithium hemodialfiltration (HDF) was performed twice. On day 4 the patient was extubated and recovered completely. On admission quetiapine in serum (Qs) was 1.800 µg/L. Peak conc. was 5.950 (h16) and fell to 3.895 µg/L (h19). During gastroscopic lavage at h22.5 it re-increased to 5.500 µg/L. T1/2 for Qs was 13 h from h22.5 to h41 and 7.8 h from h49.5 to 98.5h. HDF at h33.5 and h41 eliminated 17 mg and 24 mg, respectively.

Case 2: A 45 year-old female was intubated and mechanically ventilated in deep coma after ingestion of 18 g quetiapine (SR), zopiclone and lorazepam. SDAC was administered 1 h after arrival to the hospital. At h12 a bezoar of viscous texture adhering to the big curvature was completely removed by gastroscopic jet lavage. The lavage-fluid (11 L) contained 4.5 g of quetiapine that was eliminated. The patient recovered fully. Qs peaked at 4.750 µg/L on admission, declined to 1.458 µg/L before gastroscopy and reincreased to 4.420 µg/L during jet lavage. Terminal half-life of Qs was 6.7 h.

Conclusion

Pharmacobezoars of quetiapine (SR) can adhere to the gastric mucosa and resist mechanical efforts to remove them. They can be removed by gastroscopically performed jet lavage with water. However this procedure may promote absorption leading to a sharp but only transient rise in Qs. HDF is not effective in quetiapine elimination.