A 56-year-old man of Turkish descent presented with severe bradycardia (37 bpm) and hypotension (65/35 mm Hg) in the emergency room. A liver transplantation had been performed 8 months before because of cirrhosis due to chronic hepatitis B. The patient was on a permanent regimen of tacrolimus, mycophenolate mofetil, lamivudine, and adefovir dipivoxil. On the day of admission, he had eaten several rolls filled with honey and honeycombs brought into Austria by a friend from Turkey. One hour after ingesting the honey, the patient started feeling ill and within 2 hours developed anginal pain, nausea, and cold sweat. On arrival at our hospital, the patient was somnolent and vomited large amounts of yellowish gastric juice. The ECG revealed complete atrioventricular block with idioventricular escape rhythm (Figure), which disappeared promptly after intravenous injection of 0.5 mg atropine. Another dose of atropine was needed after 45 minutes to keep the patient’s heart rate and blood pressure within physiological ranges.

Food poisoning associated with grayanotoxin-contaminated honey was documented as early as 401 BC, when Xenophon described in his *Anabasis* the expedition of Greek troops traveling through today’s Turkey into the territory of Artaxerxes II. Such food poisonings have been typical in habitats of *Rhododendron ponticum* (Data Supplement Figure) on the Anatolian Plateau and of *Rhododendron occidentale, macrophyllum,* and *albiflorum,* which are found, for instance, between Oregon and Southern California. The nectar of these plants contains grayanotoxin, which selectively binds to voltage-dependant sodium channels in their open state, thus leading to hyperpolarization of the activation potential and, as a result, to bradycardia and hypotension. There is no need for electrical pacing, as bradycardia and atrioventricular block in honey poisoning are responsive to the antidote atropine.

Grayanotoxin intoxication should be included, not only in Turkey and California, in the differential diagnosis of bradycardia and heart block when occurring after ingestion of honey.

**Disclosures**

None.

**References**


**Figure.** ECG showing a complete atrioventricular block with an idioventricular escape rhythm of 37 bpm in a patient with honey poisoning.
Sweet Heart Block
Philipp Eller, Kathrin Hochegger, Ivan Tancevski, Christoph Pechlaner and Josef R. Patsch

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