**Background** Episodic vomiting without headache and with a normal GI-work-up may occur both in children and adults. By some it is seen as a functional disorder, others consider it as a migraine equivalent. **Case description** A 32-year old male with suspected cyclic vomiting syndrome was referred to our tertiary headache centre for a trial of migraine prophylaxis. Extensive GI- workup had not disclosed a causative disorder. Various forms of preventive treatment did not ameliorate his condition. Ultimately, partly based on his appearance, an alternative diagnosis was suspected that is characterised by distinctive clinical features. **Conclusion** Cyclic vomiting syndrome in adults is a diagnosis by exclusion and may be classified as a migraine equivalent. Even after a complete neurological workup an unsuspected yet etiologically distinct mimic of cyclic vomiting syndrome may be unveiled. As illustrated by the case, we will discuss the differential diagnosis of cyclic vomiting syndrome with an emphasis on its neurological mimics.