

CASE REPORT

## Dysgeusia as an adverse reaction to praziquantel

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### Introduction

Praziquantel is an antiparasitic drug derived from pyrazinoisoquinoline that is used against trematodes and cestodes. Over the last few years, praziquantel has been combined with albendazole in the medical treatment of hydatidosis, in spite of the lack of controlled assays. We present two cases of dysgeusia associated with praziquantel. Dysgeusia is an unpleasant alteration of taste sensation, often with a metallic taste.

### Case 1

The patient was a 63-year-old woman with a personal record of diet-controlled hypertension and ulcerative colitis. She did not receive any drug. After an episode of right-upper quadrant pain, two hydatid cysts of World Health Organization stage CE 3–4 (WHO, 2003), measuring 5.3 × 3.1 cm on hepatic segment I and 5.2 × 4.3 cm on segments VII–VIII, were found in addition to cholelithiasis. Cholecystectomy and cystopericystectomy were performed. Postoperatively, treatment with albendazole (400 mg b.i.d.) and praziquantel (1,200 mg b.i.d.) was begun. After 3 weeks, the patient reported a metallic taste 30 minutes after the praziquantel dose, which intensified over the subsequent weeks, together with dysosmia, malaise, and diarrhea. All symptoms disappeared when praziquantel was removed.

### Case 2

A 28-year-old woman presented with a 6-month history of episodes with pruritus in the palms and soles, facial

edema, and troncal wheals. Having been diagnosed with chronic urticaria, she received anti-H1 drugs. While pregnant, an ecographic control revealed hydatid cysts in hepatic segments VI (6.2 × 8.5 cm) and VII (6 × 4.4 cm), with stage CE 2. Eosinophilia (up to 19.4%; 1,120 × 10<sup>3</sup>/μL) and hemagglutination against *Echinococcus granulosus* (1:2,560) were prominent findings. Six months after delivery, cholecystectomy and partial cystopericystectomy were performed. Treatment with albendazol (400 mg b.i.d.) and praziquantel (1,200 mg b.i.d.) was begun; 1 month later, she abandoned antiparasitic drugs because of an intense metallic taste (i.e., dysgeusia). When she resumed monotherapy with albendazol, treatment was well tolerated.

### Discussion and conclusion

The treatment of choice for hydatidosis is still an invasive intervention (i.e., either surgery or puncture-aspiration-injection-reaspiration). Throughout the 1970s, the use of antiparasitic drugs against the disease started. First, there was high-dose mebendazole, which was replaced by albendazole in the 1980s because of better bioavailability. Praziquantel has been the last drug included in the therapeutic approach against *E. granulosus*. To date, the comparison between different pharmacological combinations has been based on case series (with a reduced number of patients), without randomized essays between them (Mohamed, A. et al, 1998) (Haralabidis, S. et al, 2008). This lack of studies means that there are factors, such as a better combination of drugs, doses, time of intake, or duration of treatment, that still need to be clarified. Continuous medical

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treatment is the recommended approach in inoperable cases or whenever the clinical situation of the patient rules out surgery (Cobo, F. et al, 1998) (Jamshidi, M. et al, 2008). Generally speaking, tolerance to praziquantel is very good because of the fact that it is usually taken in monodoses or during short periods. There are few described adverse effects, because long-term treatments with praziquantel are seldom applied. Adverse reactions are rare and mild, including abdominal pain, nausea, cephalalgia, malaise, and sleepiness (Shen, C. et al, 2007) (Bagheri, H. et al, 2004) (Dayan, A. et al, 2003) (El Hawey, A. et al, 1990) (Berhe, N. et al, 1999). Exceptionally, idiosyncratic or serious allergic reactions have been described. To the best of our knowledge, there have been no cases described with dysgeusia or dysosmia as an adverse effect of praziquantel or its production mechanism. In our patients, the causal relationship between praziquantel and dysgeusia was suspected symptoms that disappeared immediately after removal of the drug.

### Declaration of interest

The authors report no financial conflicts of interest. The authors alone are responsible for the content and writing of this paper.

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