A new and effective purge (Golytery) for expelling tapeworms from the gastrointestinal tract after chemotherapy

To the editor: Diphyllobothrium latum is found worldwide in salmon and freshwater trout. Humans are infected by eating raw or inadequately cooked fish containing encapsulated larval tapeworms (pleroceocoids). Most infections are asymptomatic, and are discovered by finding tapeworm segments in the stool. Niclosamide, paromomycin, dichlorophene, and quinacrine hydrochloride have been widely used in the treatment of the infection, followed by a saline purge, usually magnesium sulfate or citrate, in order to eliminate the tapeworm (1). To determine absolute cure, the scolex (commonly called the “head”) must be found in posttreatment stools. Therefore, an effective purge is a must after chemotherapy. In 1980, a new purgative, designated Golytery solution, was developed by Davis et al (2, 3). Golytery contains mainly polyethylene glycol and magnesium sulfate, and is used for cleaning the gastrointestinal tract before colonoscopy, barium enemas, and surgery. In the past 2 years, we successfully treated 3 cases of D. latum infection using dichlorophene and Golytery. All patients were Japanese patients in good health. Case 1: A 25-year-old woman with a history of ingesting raw salmon, recalled eating raw fish 2 months before detection of the parasite. Case 2: A 29-year-old man had eaten raw salmon slices 10 months before seeking medical help, and reported that segments of tapeworm had been excreted at least 3 times. Case 3: A 51-year-old fishmonger gave a history of eating raw fish. None of the patients had gastrointestinal or other symptoms, and on examination their physical findings were normal. The patients were treated with a single dose of dichlorophene in the morning (50 mg/kg). Two hours later, Golytery was administered at a rate of 1 liter/h. Chains of proglottids, with lengths of 5.6, 2.9, and 2.7 m (cases 1, 2 and 3, respectively) were found in their purged stools, as were the 3 scolecis. The tapeworms were identified as D. latum by proglottid morphology.

The mechanism of the expulsive effect shown by Golytery cannot be clearly explained. However, Golytery does have some advantages over saline purges. First, the components of Golytery are not absorbed through the gastrointestinal mucosa, and the solution is as isotonic as plasma. Therefore, Golytery does not disturb the electrolyte balance in the gastrointestinal tract and does much less damage to the gastrointestinal villi than do the other purgatives. In addition, intestinal peristalsis is not stimulated. None of the 3 patients complained of intestinal discomfort after drinking Golytery, and the tapeworms were passed intact. Second, the patients need not restrict their intake of food and liquid before the Golytery purge, the procedure of which can be accomplished in as short a time as 2 hours. For the same reasons, Nakabayashi et al (4) recently treated 4 cases of taeniasis saginata and 2 cases of D. latum infection by duodenal administration of Gastrografin, a water-soluble contrast medium used in endoscopy and roentgenfluoroscopy. In contrast to Gastrografin, the administration of Golytery was easier, and quite safe. Therefore, the combination of an effective vermicide and Golytery might overcome the difficulty of tapeworm vermifugation and be useful not only for tapeworms but for other intestinal parasites as well.

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