

The erroneous diagnosis led to long-lasting unnecessary anti-parasitic treatment – a case report

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We present a case of a 38-year-old patient, a Tricity resident who was treated several times with anthelmintic medication during 6 months due to a wrong diagnosis. Previously, he was diagnosed with ulcerative colitis, resistant to Sulfasalazine, and treated with synthetic glucocorticoids. Moreover, due to low back pain, the patient periodically took non-steroidal anti-inflammatory drugs. These medications, as an adverse effect, may have been the cause of recurrent gastrointestinal complaints. In April 2018, the patient attended his general practitioner after being observed in a toilet bowl: in water and on expelled faeces, moving, translucent organisms, a worm shape and a length of about 0.5 cm. On the basis of photos of individuals collected from the faeces, made by the patient with a mobile phone, the doctor stated helminthiasis and ordered antiparasitic treatment with Pyrantelium. However, despite treatment, the patient continued to find the same organisms in the toilet. Due to the suspected infection with pinworms, the physician prescribed Vermox (treatment repeated twice: after 2 and 4 weeks), without visible improvement, and then Zentel. As the “worms” continued to appear on his faeces, in September 2018 the patient decided to visit another clinic where he was consulted with an infectious and parasitic diseases specialist. The coproscopic examination was performed to exclude pinworm infection. No *Enterobius vermicularis* eggs were found. Individuals collected from the patient’s stool were generally determined as “Parasites”, what did not have a full diagnostic value. The patient was advised to deliver them to the Department of Tropical Parasitology of Medical University of Gdańsk in order to re-perform their identification. A direct wet preparation was made from the specimen provided and it was found that it was not either adult pinworm or any other intestinal parasite. Based on specific morphological features, the organism was determined as a moth fly larva of the genus *Psychoda* (Diptera, Psychodidae). These flies are synanthropic insects whose larvae, besides of natural water bodies, often appear in bathroom traps, washbasins and toilet bowls due to their low sensitivity to water pollution. They do not pose any threat to human health, but without microscopic examination, they may be mistaken for (misdiagnosed as) intestinal parasites. However, their morphological features visible under magnification are characteristic of insect larvae, not intestinal helminths, and should not pose diagnostic difficulties. The patient was convinced that the larvae were excreted with faeces, meanwhile, they were probably in the toilet reservoir or under the edge of the shells and got into the shells with the water. Physicians, and especially diagnostics, should take into account the possibility of such situations. The presented case shows errors committed by both the doctor and the laboratory diagnostician, which exposed the patient to unjustified treatment with preparations that are not

free of side effects. The doctor who was the first to accept the patient should not initiate treatment only on the basis of pictures of “parasites” he provided. On the other hand, the diagnostician performing the study did not show sufficient knowledge from not only the field of parasitology but also the basics of biology. Only the analysis of the material provided by a specialist in this area allowed for a proper diagnosis. This confirms the need to launch a specialization in the field of medical parasitology.