Invasive mucormycosis is a life-threatening fungal infection in immunocompromised children. It is associated with high mortality rates with limited data concerning the outcome in the pediatric population. Isavuconazole is the newest generation triazole approved for the treatment of invasive mucormycosis in adult patients, but clinical trials have not yet been performed in pediatric population although results of few cases report improvement following the initiation of this treatment. We report a case of a 14-year old girl treated for acute lymphoblastic leukemia complicated by destructive necrotic fungal pneumonia and mycotic abscesses on her kidneys. The patient was treated successfully with surgical lobectomy of the inferior lobe of her left lung, nephrectomy and antifungal combination therapy (Amphotericin B and Isavuconazole). At the time of this report, three months after initiating isavuconazole treatment, the patient continues to receive the drug daily and is doing well. Regarding side effects, we reported transient increase in blood urea and creatinine.

Despite the fact that the Isavuconazole offers new perspectives, further studies are necessary to confirm effectiveness in the pediatric population.

Infantile hemangiomas (IH) are benign vascular neoplasms resulting from the proliferation of endothelial vascular cells. They are characterized by unique natural course, with rapid growth in the first year of life (proliferation phase), followed by a slowdown in growth and regression (involution phase) that varies from one to ten years. The aim of the study is to present institutional experiences in the treatment of IH with propranolol. The study included 37 children with IH, treated at the Division of Hematology, Oncology and Clinical Genetics of the Department of Pediatrics Clinical Hospital Centre Rijeka, in the period from 1 January 2015 to 31 December 2017. Our results have confirmed that IH are more common in females. The majority is localized in the head area. They are mostly solitary lesions. The average diameter was 2.8 (± 1.4) cm. The average age at the start of the treatment with propranolol was 3.7 (± 1.1) months. The average duration of treatment was 10.1 (± 5.9) months. Propranolol is very effective in the treatment of IH, with complete regression achieved in 70.3% of children. Side effects are extremely rare (no one recorded in our study), but bear out the initiation of therapy in the hospital setting.

Treatment with intravenous immunoglobulins (approximately 1.5 g/kg), therapy was repeated with pulsed doses of dexamethasone (24 mg/m2), with a mild and temporary effect. Treatment with low doses of prednisone (2 mg/kg) also did not yield significant results (Plt 20-30 x109/L). Because of the appearance of bloody, diarrheal stools, the treatment was expanded and due to Campylobacter infection, azithromycin therapy was initiated. Ultrasound examination of the abdomen indicated possible intestinal parasitosis, which was confirmed by intestinal passage, while by stool evacuation the macromorphological intestinal parasite was identified as Ascaris lumbricoides. Following mebendazole therapy, there was an immediate and significant increase in platelets (Plt 87 x109/L), which were continuously normal during outpatient follow-up (Plt 320 x109/L).

The association of the etiology of ITP with viral and bacterial infections, certain drugs and vaccines is well known in the literature. The association with parasitosis was based only on anecdotal cases, mainly erythrocyte parasites such as Plasmodium vivax or tissue parasites such as Toxoplasma. Given the resistance of ITP to standard initial therapy and prompt resolution after antiparasitic therapy in our case, a conclusion is imposed about the possible association of ITP with intestinal parasitosis that warrants further research.