
Schistosomiasis in the shadow of COVID-19

EDITORIAL

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The author has completed the ICMJE form and declares no conflicts of interest.

Major progress in combatting schistosomiasis is at risk of being reversed in many countries because of measures taken against the coronavirus pandemic.

The parasitic disease schistosomiasis affects more than 200 million people worldwide, 90 % of them in sub-Saharan Africa (1). The disease affects the poorest and most marginalised – rural farmers and fisher folk without access to clean water or satisfactory sanitary conditions. Children and women who bathe and wash clothes in rivers are at particular risk.

The article by Kristiansen et al. now being published in the Journal of the Norwegian Medical Association shows that many Norwegian students who come into contact with freshwater in areas where schistosomiasis is endemic become infected (2). The study places the battle against the disease on the agenda, and shows that it is something that can affect us when we travel. Many people may be infected without being aware of it. The study helps to provide travellers with correct information and treatment for getting rid of the parasite, although it seldom gives rise to severe disease in travellers, merely dermal irritation (swimmer's itch). Brief exposure to freshwater does not result in long-term harm. The study finds that serological analysis is the best means of detecting schistosomiasis in travellers. At the same time, it is worth noting that detection and treatment should take place three months after travel (2).

The *Schistosoma* parasite's microscopic larvae penetrate the skin of people who come into contact with freshwater containing the parasites. Freshwater snails are the intermediate host. The larvae develop in the human body into adult flukes (1–2 cm) in venous plexi near the liver or kidneys. Their eggs cause local inflammation and

fibrosis, and in cases of severe infection, this leads over time to impaired liver, kidney and gastrointestinal function, fibrosis of the urinary tract and risk of cancer of the bladder and of anaemia in children. The consequences are reduced capacity and reduced income for many years (3). Urogenital schistosomiasis also increases the risk of HIV infection (4). Mortality is difficult to estimate, and kidney failure, liver failure and chronic gastrointestinal diseases are often not diagnosed in resource-limited areas which lack access to good health services (1).

Since the year 2000, regular mass distribution of the drug praziquantel has sharply reduced the prevalence of schistosomiasis in many areas (5). In 2018, WHO records showed 92 million people receiving praziquantel therapy, i.e. less than half of those who should have received it, but many of those treated live in the hardest hit regions. Mass distribution is important both to reduce the disease burden and to break the infection cycle (1).

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Mass distribution of drugs is part of the WHO's strategy for combatting a number of neglected tropical diseases. This distribution has eliminated lymphatic filariasis as a public health problem from sixteen countries, trachoma from nine countries and onchocerciasis ('river blindness') from four countries. Fighting these diseases is one of the most cost-effective public health interventions there is, and an important means of reducing the most extreme health disparities in the world (6).

When I was working at the Dadaab refugee camp in Kenya in 2003, a camp that at the time housed around 250 000 Somali refugees, Doctors without Borders regularly distributed praziquantel to all school children. The refugees had clean running water, but the children bathed in the rivers in the rainy season. Distribution had been ongoing for years, and we saw only a handful of cases of clinical schistosomiasis annually, whereas prevalence had been very high before mass distribution began.

Findings of eggs in faeces or urine are the most important diagnostic indicator among local populations in endemic areas (1). But better tests and more research are needed. Improved and more widely used rapid tests would result in more targeted and effective efforts. When prevalence is low, mass treatment is not needed, but rather targeted treatment of those infected (7). A praziquantel mixture to treat the youngest children is also needed (8).

As with measures against the coronavirus, mass distribution of drugs has been suspended in many places to avoid large gatherings, and in many countries schools have been closed for months. There is a risk that this has halted the distribution of praziquantel and other anti-parasitic drugs. Whether this results in a resurgence of schistosomiasis, we will not know for sure for a couple of years.

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Publisert: 15 February 2021. Tidsskr Nor Legeforen. DOI: 10.4045/tidsskr.21.0057
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