Reviewer’s report

Title: Schistosomiasis manifesting as a colon polyp: a rare finding

Version: 3
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Reviewer: Joannes Clerinx

Which of the following following best describes what type of case report this is?: An unexpected association between diseases or symptoms

Has the case been reported coherently?: No

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: No

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: Yes

Does the case report have diagnostic value?: Yes

Will the case report make a difference to clinical practice?: Yes

Is the anonymity of the patient protected?: Yes

Comments to authors:

P 5

“Means of diagnosis includes the demonstration of parasite eggs in stools by microscopic examination (Kato-Katz smear), which may distinguish different species; Serologic tests by detecting one of the two gut associated parasite proteins (the circulating anodic antigen (CAA) and the circulating cathodic antigen (CCA)) and endoscopy and pathology”.

The authors still seem to be somewhat confused when discussing the serological diagnostic tests for schistosomiasis, and their relative importance. Some reformulation could be done in order to highlight a logical sequence of the diagnostic tests in a workup of a suspected case, to start with the most sensitive
test, and then using the antigen tests as an alternative to the fecal microscopy test to assess the parasite burden.

The currently most sensitive tests are serum antibody tests (ELISA, EIA, HAI..), looking for the presence of anti-schistosome antibodies in the infected person, against schistosome antigen using whole adult worm antigen and/or egg antigen as a test substrate. The drawback of these antibody tests are the lack of sensitivity in acute infection, and their persistence after successful parasite elimination (lack of specificity for active schistosomiasis infection). Serum antibody tests are cheap.

Recently schistosome antigen assays detecting CCA excreted in urine have been tested in populations of endemic areas, and compared well with the standard Kato-Katz stool test in S.mansoni infection in terms of sensitivity. However, the Kato-Katz test is not a sensitive test to detect (very) light infections, and therefore not an ideal test to rule out active infection. This also applies to the CCA detection tests, that are somewhat more sensitive than the Kato-Katz test, but may miss very light infections often seen in travelers returning from endemic regions, and in migrants infected years before. Until recently, CCA based antigen detection tests were expensive and not commercially available.

In evaluating schistosome infection in a nonendemic setting one would first choose a very sensitive test as a screening test (schistosome antibody test), and if positive, a schistosome antigen test (CCA in urine) to assess the parasite burden. A semiquantitative CCA test assay would then be preferable. This test can replace the Kato-Katz if species determination is not an issue, and can also be used to assess worm burden reduction after treatment.

In the patient prescribed in the case report, worm burden is probably very low, and I would expect the serum antibody tests to be certainly positive, but it would not necessarily be so for the CCA (antigen) test.

The next paragraph is well formulated.

P6

“Biopsies may be taken from the rectal valve via a biopsy forceps, another technique involves pulling the mucosa over the end of the proctoscope and cutting off with the curette, thus obtaining rectal snips”

This can be left out. Simple rectal biopsies with a small biopsy forceps, such as used during colonoscopy may suffice. If no egg has been reported in biopies of the rectosigmoid section of the colon of the case report patient, this means that the worm burden is probably already very low.

P7

“If eradication is warranted then other therapeutic options include Oxamniquine alone or in combination with Praziquantel and Trioxolane, but they are used as second line therapy#26#.”
Do mention repeated treatment with praziquantel as a better option. After two treatments with a single dose 4 weeks to 8 weeks apart, parasite load reduction will be > 95%. Oxamniquine is rather expensive and difficult to get. Combination of oxamniquine with praziquantel has not yielded superior results to either drug alone (ref: Danso-Appiah A, Olliaro PL, Donegan S, Sinclair D, Utzinger J. Drugs for treating Schistosoma mansoni infection. Cochrane Database Syst Rev. 2013 Feb 28;2:CD000528)

**Level of interest**: An article whose findings are important to those with closely related research interests

**Quality of written English**: Acceptable

**Declaration of competing interests**: No competing interests