

# Gastrosopic and Rectosigmoidoscopic Observations in Schistosomiasis Mansoni Preliminary Report<sup>1</sup>

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**S**CHISTOSOMIASIS MANSONI is a chronic parasitic disease affecting primarily the gastrointestinal tract with the production of symptoms referable almost exclusively to the colon, and later on involving the liver and the spleen with the production of cirrhosis and splenomegaly, respectively. The stomach is seldom affected by the disease, according to observations that have been made on cases coming to autopsy.<sup>2</sup>

Of 125 patients examined gastrosopically by the author, ten were suffering from schistosomiasis mansoni. A review of the literature fails to reveal a single instance of gastrosopic examination in patients with this disease. In view of this fact, I am reporting on the gastrosopic picture observed in this small series of cases, being, however, cognizant of the fact that no statistical conclusions can be reached from the study of so limited a number.

## PRESENTATION OF MATERIAL

The table shows the distribution as to race, age, and sex; the amount of free hydrochloric acid in the gastric contents following stimulation with a subcutaneous injection of histamine; the gastrosopic diagnosis; and the rectosigmoidoscopic findings.

The stomach was found normal in only one instance. This was the case of a twenty-three-year-old, white, Puerto Rican female with a history of attacks of headache, at times accompanied by nausea and vomiting. Physical examination revealed nothing in particular. In spite of several series of Fuadin, the stools remained positive for ova of *SCHISTOSOMA MANSONI*.

Atrophic gastritis was encountered in three cases, an incidence of 33½ percent. Two of these cases had sprue, a disease in which the

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1. Received for publication December 16, 1941.

2. E. Koppisch, "Studies on Schistosomiasis Mansoni in Puerto Rico: VI, Morbid Anatomy of the Disease as Found in Puerto Rico," *Puerto Rico J. of Pub. Health & Trop. Med.*, XVI (1931), 395-435.

stomach mucosa usually appears atrophic. The other case was primarily one of schistosomiasis. The gastric analysis was found normal in two, and there was hypoacidity in the other one.

Hypertrophic gastritis was encountered in three instances, or 33 $\frac{1}{3}$  percent. In these cases gastrointestinal disturbances had been present for many years and were thought to be due to schistosomiasis. The gastric analysis showed a hypoacidity in two and hyperacidity in the other one.

Acute superficial gastritis and atrophy were observed in one case; atrophic and hypertrophic areas in another instance. Acute superficial changes were encountered in only one patient, a case of a heavy infection with *SCHISTOSOMA MANSONI*.

Rectosigmoidoscopic examination was performed in seven of the nine cases. The examination was normal in only one instance, the gastric mucosa of which was also found normal. Atrophy of the rectal mucosa was found in two instances, in both of which atrophy of the gastric mucosa was also found. Both cases had sprue. Atrophic areas and patches of acute superficial inflammation were found in two, and acute superficial inflammatory changes in another two.

All but one of the patients belonged to the white race. The ratio of males to females was seven to three. Six of the cases examined were between thirty and thirty-nine years of age. The gastric analysis did not show any relationship to the type of mucosa encountered.

Hospital No.	Race	Age	Sex	Free HCL.	Gastrosopic Diagnosis	Rectosigmoidoscopic Diagnosis
A 278	White	28	Male	Hypo	A. S. I.	A.
9945	Colored	29	Female	Normal	A.	A. S. I.
A 683	.....	50	Female	Hyper	A.	A. S. I.
A 497	White	22	Male	Hypo	H.	A. S. I.
8563	White	22	Male	Hypo	A. S. I.	A.
9180	White	33	Male	Normal	A.	A.
A 305	White	27	Male	Hypo	A.	..
A 601	White	30	Male	Hypo	H.	A.
7810	White	19	Male	Hyper	H.	A. S. I.
8509	White	23	Female	Hyper	N.	N.

A = Atrophy (of gastric or rectal mucosa)  
 B = Hypertrophic gastritis  
 N = Normal  
 A. S. I. = Acute superficial inflammation.

Only those cases of schistosomiasis mansoni which showed no splenomegaly were examined, for splenomegaly interferes with the examination of the stomach.

The flexible Wolf-Schindler gastroscope, 85°, was used in all the examinations. The classification advocated by Schindler<sup>3</sup> for gastric diseases was used.

#### COMMENTS

Gastrosopic examinations in ten cases of schistosomiasis mansoni revealed that the gastric mucosa was either normal, atrophic, hypertrophic, or acutely superficially inflamed. No definite conclusions can, therefore, be reached from this report. However, it seems quite obvious that in one way or another the gastric mucosa presents some alterations. Whether there is a sequence of events beginning with an acute process, going through a hypertrophic phase and, finally ending in atrophy, is impossible to ascertain. The examination of a greater number of cases may possibly lead to more definite conclusions.

#### SUMMARY

1. Gastrosopic observations in ten cases of schistosomiasis mansoni are presented.
2. The gastric mucosa was normal in only one instance; atrophic in three; hypertrophic in another three; and acutely superficially inflamed in one. Acute superficial inflammation and areas of atrophy were observed in one case, and atrophic and hypertrophic areas in another.
3. No conclusions can be reached from this report.

3. R. Schindler, *Gastrosopy, the Endoscopic Study of Gastric Pathology* (Chicago: University of Chicago Press, 1937).