The Sprue Rectum as a Clinical Diagnostic Aid[1]

By CAROLINE KREISS PRATT

From the Department of Clinical Medicine, School of Tropical Medicine, San Juan, Puerto Rico

SINCE THE CLINICAL RECOGNITION of sprue, a great volume of literature has been written concerning the various manifestations of this disease. Its physical aspects, the gastrointestinal symptoms, the stools, urine and blood chemistry, the hematological picture, the X-ray findings, and the gastroscopic and rectoscopic examinations have all been discussed in reference to the malady. Although this paper has nothing to offer as an aid in the determination of the cryptic etiology of sprue, it does offer a very simple and helpful suggestion for the physical diagnosis, namely, the use of digital examination of the rectum. As far as the writer is aware, there are no reports referable to this clinical finding in the medical literature.

In the examination of the normal rectum, the anus is observed, the anal orifice entered by the examining finger which immediately becomes surrounded by the external anal sphincter muscle that feels like a thickened cord. The initial spasm of this muscle, in response to the entering finger, soon passes away, and its normal tone can be felt. About 2.5 cm. further inward, another sphincter is encountered—the internal anal sphincter—which is thinner, less contractible than the former. Progressing upwards, the lumen of the gut is found to be narrowed somewhat by the insertion of the levator anal muscle. One can usually advance to the plicae transversalis recti, the sphincter tertius on the right side being the most prominent of the three plicae and found approximately 7.5 cm. above the anus. With regard to the mucosa one can palpate the rectal columns and the less distinct rectal mucosal folds.

In the digital examination of the sprue rectum, one finds the following conditions: the anus shows the abuse of the frequent stools, and the sphincters are in spasm. There is marked discomfort on the part of the patient to the entrance of the examining digit, causing the circular musculature to maintain a constant spasm about the finger. This spasm is more pronounced in young adults than in patients over fifty years of age. On introducing the finger further upwards, one is surprised by finding a voluminous cavity only. In palpating the wall, one is struck by its thinness and by the

1. Received for publication June, 1944.

loss of the previously mentioned rectal mucosal folds and plicae. The entire surface is smoother, warmer, and more tender than usual. Palpation gives great discomfort to the patient, even causing some to cry out in pain. The examination often produces a desire to defecate, and frequently there is an escape of flatus, accompanied by a yellowish gray liquid stool during or immediately following the examination. These findings are minimal in early sprue but more marked in advanced cases.

The above picture corollates nicely with the clinical complaints of the patients. The burning sensation and the pain in the oral mucosa have been the most classical symptoms used in the diagnosis of sprue.[2] However, the same burning sensation and pain occur in the rectum. Each bowel movement—and there are many—accentuates these feelings. The rectal discomfort is as agonizing as the oral. In brief, the two extremes of the gastrointestinal tract exhibit the same manifestations: loss of definition, profound irritation, and burning sensation of the mucosa. The prevalence of these rectal findings is in direct proportion to the changes found in the mouth. The more severe the symptoms of the disease the more advanced are the rectal findings, although the mouth lesions sometimes occur earlier in its course than those in the rectum. As a whole, these signs have not been mentioned in the discussions of coeliac disease, pernicious anemia, pellagra, idiopathic steatorrhea, or the dysenteries, hence this rectal complex can be considered as an additional diagnostic aid in the determination of sprue.

In conclusion, the sprue rectum presents a very definite disease pattern. There is spasm of the rectal sphincter due to the local irritation of the rectal mucosa by the frequent and acid stools. The obliteration of the normal mucosal folds is even more diagnostic of the disease. The pain experienced by the patient is far in excess of that produced by the ordinary rectal examination. These findings are constant and increase as the general symptoms of sprue advance and usually parallel the changes seen in the oral mucosa. The changes lessen, however, as improvement sets in.

2. B. K. Ashford, Tropical sprue in Puerto Rico. Synthesis of 15 years' work and investigations of 2,000 cases. International Conference on Health Problems in Tropical America (Boston: United Fruit Company, 1924).