Primary Linitis Plastica of the Rectum:*
Report of a Case

LEWIS R. WEINTRAUB, M.D., LEON LITTMAN, M.D.

From the Division of Proctology, Department of Surgery, Jewish Hospital of Brooklyn, New York

Primary linitis plastica, wherever it occurs, is a very interesting tumor, especially from a pathologic view. Brinton named and described this tumor in 1867. Many terms have been used to describe this condition such as leather-bottle stomach, carcinoma disseminatum fibrosum and fibroid induration. Although there have been opinions in favor of a specific or nonspecific inflammation as the principal etiologic factor, the lesion is presently considered to be neoplastic because careful search always reveals tumor cells. Statistically, 99 per cent of these tumors occur in the stomach—about 0.9 per cent in the large bowel and 0.1 per cent in the gallbladder and breast. In 1936, Dixon and Stevens reported 43 collected cases of linitis plastica involving the colon as a metastatic tumor of the intestinal tract secondary to gastric neoplasm. In 1961, Fahl, Dockerty and Judd, in a report on scirrhous carcinoma of the colon and rectum, described 11 cases (their type I) as linitis plastica without presenting any evidence that the lesions were primary.

Only eight cases of primary linitis plastica of the colon have been reported. Turnbull and associates reported one case and Laufman and Saphir reported four, in two of which the rectum was involved. David, in 1931, reported one case and Fontaine and associates, in 1958, reported two cases of primary linitis plastica of the rectum. However, in view of the fact that no mention was made of the condition of the stomach by David or Fontaine, it is not certain whether the tumor was primary or metastatic. The case reported herewith is of interest because it may be the first case where it can be said with assurance that the tumor is primary linitis plastica of the rectum.

Pathologically, the involved organ appears to be a rigid tube with greatly thickened walls due to the intense infiltration by tumor cells and excessive fibrosis. The mucosa may be thrown into folds, and adherent to the submucosa and it is usually intact. Microscopically, three types of cellular elements predominate.

In the first type there are small neoplastic cells with little recognizable cytoplasm. The nuclei are small, irregular and dark staining. The cells may be arranged in clumps or alongside connective tissue fibers within the muscularis.

The second type consists of larger epithelium-like tumor cells which show transition from low cuboidal types to signet ring variants.

The third type consists of minute acinar structures lined by a single layer of low cuboidal atypical cells which appear to be malignant. These structures are usually found in early localized lesions. Also, connective tissue fibers and chronic inflammatory cells are present.

Report of a Case

A 62-year-old white man was admitted to the Jewish Hospital of Brooklyn, complaining of increasing constipation, rectal bleeding and tenesmus of four months' duration. Two weeks prior to admission, he became partially ob-
Fig. 1. Specimen showing groups of tumor cells and numerous inflammatory cells adjacent to normal mucosal glands (low power).

Fig. 2. Nests of neoplastic cells (hematoxylin and eosin). High power of specimen shown in Figure 1.