Linitis Plastic in a General Hospital of Mexican Caribbean; Clinical Case and Literature Review

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Abstract

Backgrounds: The term linitis plastic was used by Brinton to designate a special disease of the stomach, benign in nature, characterized, pathologically, by a diffuse or circumscribed increase in the connective tissue involving chiefly the submucosa, and to a lesser degree the other layers, giving rise to a marked thickening of the stomach walls with a corresponding diminution in its lumen; clinically, by its insidious onset, its slow progressive gastric symptoms, its cachexia, and fatal termination.

Clinical case: Male of 49 years-old presenting dyspepsia, weight loss (15 kg) of 6 months of evolution treated with alternative medicine (herbal) without improvement. Request panendoscopy by observing: marked thickening of the gastric mucosal folds, which were difficult to distend and gastric wall rigidity. Some gastric folds were enlarged and some parts of the mucosa had a mosaic pattern and a “snake skin” aspect. Biopsies are taken and the histopathological study revealed an undifferentiated adenocarcinoma with signet ring cell. The patient is sent to a third level of cancer care for their comprehensive treatment.

Discussion: The cumulative lifetime risk of clinically detected gastric cancer is 63%-83% for women and 40%-67% for men. The average age at diagnosis is 40 years. The treatment for linitis plastic is a controversial issue. Some authors have proposed using more radical multimodality treatments such as systemic and/or intraperitoneal chemotherapy in addition to radical surgery, whereas others suggest that these patients should be treated with primary chemotheraphy even in the absence of unfavorable parameters, as the overall survival rate has been reported to be low in patients undergoing curative surgery.

Keywords: Gastric linitis plastic, Endoscopy, Diagnosis, Signet ring cell carcinoma

1. INTRODUCTION

The term linitis plastic was used by Brinton (Brinton to designate a special disease of the stomach, benign in nature, characterized, pathologically, by a diffuse or circumscribed increase in the connective tissue involving chiefly the submucosa, and to a lesser degree the other layers, giving rise to a marked thickening of the stomach walls with a corresponding diminution in its lumen; clinically, by its insidious onset, its slow progressive gastric symptoms, its cachexia, and fatal termination (1). The condition of scirrhus of the stomach had been recognized two to three centuries before Brinton's description (2).

2. CLINICAL CASE

Male of 49 years-old presenting dyspepsia, weight loss (15 kg) of six months of evolution treated with alternative medicine (herbal) without improvement. Request panendoscopy by observing: marked thickening of the gastric mucosal folds, which were difficult to distend and gastric wall rigidity. Some gastric folds were enlarged and some parts of the mucosa had a mosaic pattern and a “snake skin” aspect. Biopsies are taken and the histopathological study revealed an undifferentiated adenocarcinoma with signet ring cell. (Fig. 1). Histopathologic report it was: malignant epithelial neoplasia located in the lamina propria composed of nests and loose cells whose cytoplasms are vacuolated amphiphiles with pleomorphic nuclei rejected towards the periphery. Alternate with mitosis figures and inflammatory infiltrate. The patient is sent to a third level of cancer care for their comprehensive treatment.
Figure 1 & 2. (glandular Pattern). Malignant epithelial neoplasia is observed, with diffuse and vaginal glandular growth pattern. The glands are lined by cells of abundant cytoplasm eosinophils to amphiphiles and nuclei of irregular contours with evident nucleoli.

Figure 3 & 4. In solid or diffuse areas. Cells with intracytoplasmic vacuoles are identified, with nuclei rejected towards the periphery. 
Dx: Diffuse type adenocarcinoma with seal ring cells.

3. DISCUSSION

Linitis plastic (LP) is a diffuse infiltrative gastric adenocarcinoma. This condition is marked by thickening and fibrosis of the gastric wall, the malignant cells being scarcely distributed in the fibrous stroma. Our patient, when observing the thickening of the gastric mucosa with some stiffness in their walls as well as the change in the pattern of the gastric folds with images in snake skin, made us think of gastric linitis which was confirmed by histopathological examination of the biopsies. Similarly, we did not observe an advanced stage of the disease in our case as described by Negreanu, et al. (3).

We undoubtedly agree with Shan, et al., (4) regarding the utility of endoscopic ultrasound for tumor staging and its delivery to the oncology department for its management. In our hospital there is no endoscopy or endoscopic ultrasound service, so the patient was referred to a third-level hospital for its staging and corresponding treatment.

Linitis plastic can affect the entire digestive system. Its possible secondary nature necessitates a systematic search for a primary tumor. Hence the usefulness of the use of computerized axial tomography and F-18 fluorodeoxyglucose positron emission tomography (FDG PET) as recommended by Burgain C, et al., (5) and Sampath, et al., (6) These diagnostic aids are beyond our reach in a community hospital such as ours.

Currently there is controversy regarding the management of plastic lithiasis and this will depend on the degree of progression of the disease that goes from radical surgical resection to palliative management. The multimodality treatment is for today the management of choice in this type of patients because survival following resection in patients with LP is not significantly different to that in those with non-LP diffuse gastric cancer (7-13).

Although the signet ring cell histologic subtype (SRC) is an independent predictor of poor prognosis in advanced gastric adenocarcinomas (GA), its prognostic value in early GA remains highly controversial (14-17).

REFERENCES


