

中文題目：胃平滑肌瘤能用藥物治癒嗎

英文題目：Can gastric leiomyoma be cured with medical treatment

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#### Introduction:

Gastric leiomyoma is an uncommonly found benign submucosal neoplasm. Leiomyomas are typically asymptomatic, even when large in size. However, in some cases, these neoplasms may be symptomatic and cause compression, obstruction or hemorrhage.

Medroxyprogesterone acetate (MPA) is a synthetic derivative of progesterone. It was used in many obstetric and gynecology problems. We hypothesized Medroxyprogesterone acetate (MPA) had a similar mechanism for gastric leiomyoma inhibition.

#### Case presentation:

A 70-year-old woman was evaluated because of 10 days of progressive intermittent periumbilical pain, accompanied with loss of appetite, and a protruding palpable mass. The patient had a medical history of coronary artery disease, congestive heart failure, hypertension, type 2 diabetes mellitus, hypothyroidism, and hyperlipidemia.

The physical examination was notable for a protruding abdomen mass. Laboratory studies revealed white blood cells level of 15860 per microliter (normal range, 4100 to 15000) with neutrophil level of 81.2% (normal range, 42% to 71%) and C-Reactive protein level of 36.66 milligram per liter (normal range, below 3). Computed tomography of the abdomen showed an about 10 centimeters huge poor enhancement of stomach mass and severe gastric outlet obstruction.

Esophagogastroduodenoscopy revealed a huge gastric submucosal tumor from body to fundus with nearly total obstruction. Further computed tomography guided biopsy revealed gastric leiomyoma on pathology. Surgical intervention was suggested, but the patient chose conservative treatment. Hence, she was discharged with oral antibiotics

and Medroxyprogesterone 250 milligram per day for improving her appetite

In regular out-patient departments follow up, the patient only took Medroxyprogesterone 250 milligram per day after discharge for 3 months. And her clinical symptoms were improving.

Esophagogastroduodenoscopy and computed tomography of the abdomen one year later after discharge revealed much shrinkage of stomach mass, and it almost disappeared, and much improvement of gastric outlet obstruction.

### Discussion:

Leiomyomas are smooth muscle tumors that arise from either the muscularis mucosae or muscularis propria within the wall of the gastrointestinal tract.(1)

The clinical symptoms in gastric leiomyoma vary from asymptomatic to symptomatic like occult GI bleeding, abdominal pain, postprandial fullness, anorexia, abdomen mass, or weight loss. The asymptomatic patient may be incidentally found by endoscopy.

Most benign gastric subepithelial masses, including leiomyoma require no further treatment. In fact, the treatment approach varies according to size. All nodules  $\geq 2$  cm should be excised due to the risk for malignancy.(2) Other sizes need regular follow up. Also, if it was symptomatic gastric leiomyoma, it needs further treatment. Treatment included surgical intervention or endoscopic resection.

Medroxyprogesterone acetate (MPA) is a synthetic derivative of progesterone administered by oral form or intramuscular injection for abnormal uterine bleeding, secondary amenorrhea, contraception, endometrial hyperplasia, endometrial carcinoma, endometriosis, and cachexia. The mechanisms of action of Medroxyprogesterone acetate (MPA) include transforming a proliferative endometrium into a secretory endometrium, and inhibiting secretion of pituitary gonadotropins, which prevents follicular maturation and ovulation and causes endometrial thinning. It reduces the incidence of endometrial hyperplasia and risk of adenocarcinoma.

In our case, the patient took medroxyprogesterone acetate (DMPA) for three months. And her huge gastric leiomyoma was markedly shrinking. We thought Medroxyprogesterone acetate (MPA) had effects for gastric leiomyoma inhibition as it acts in uterine fibroids, and it might be a valid treatment option to consider.

1. Hwang JH, Rulyak SD, Kimmey MB, American Gastroenterological Association I. American Gastroenterological Association Institute technical review on the management of gastric subepithelial masses. *Gastroenterology*. 2006;130(7):2217-28.
2. National Comprehensive Cancer Network (NCCN). NCCN clinical practice guidelines in oncology. 2021.