



## Accidental Discovered Pulmonary Stenosis in Benign GIST Tumor Complicated by Stroke after Tumor Resection

Khaled Sror, Ahmed Adel, Reham Darwish and Manal Adel\*

Department of Cardiovascular, Kasr Alainy Medical School, Egypt

### Keywords

Gastrointestinal Stroma Tumor (GIST); Pulmonary Stenosis (PS); GIT

### Introduction

We report a case of Accidental discovered pulmonary stenosis in benign GIST tumor complicated by stroke after tumor resection.

### Case Presentation

A 48 years old Arabian female, housewife married with two children presenting in internal medicine department with hematemesis, patient was in hypovolemic shock resuscitated and was given blood, upper GIT was done revealing benign tumor and partial gastrectomy was done, five days postoperative patient developed left sided weakness, she gave past history of thyroidectomy one year ago.

### Examination

Patient vitals BP 130/90, P64, oxygen saturation was 95%, congested neck vein with prominent A wave, scar of thyroidectomy, chest examination free, abdomen was free apart from scar of partial gastrectomy, cardiac examination auscultation revealed ejection click with ejection systolic murmur and neurology examination revealed hypertonia of left side with motor power grade 5/6, positive Babinski sign and circumduction gait of upper motor neuron lesion.

### Investigation

ECG revealed p pulmonale and RVH pattern, chest X-ray prominent pulmonary conus, CT brain revealed infarction, pathology report of gastric tumour revealed it is benign GIST tumor, protein C and S were free and 5HIAA was free echocardiography dilated right side with mild tricuspid regurge, severe pulmonary stenosis peak gradient 134 mmHg and RVSP 114 mmHg, TEE revealed no shunt to explain infarction of the patient (Figures 1-3).

### Management

Patient was stabilized and removal of tumor was done, after she was complicated by stroke investigation was done which did not reveal cause of infarction but patient was on physiotherapy with some improvement for her weakness. Regarding pulmonary stenosis she underwent successful balloon angioplasty and was discharged home safely on aspirin.

### Discussion

Gastrointestinal Stromal Tumors (GIST) account for 1% to 3% of all resected gastric tumors.

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#### \*Correspondence:

Manal Adel, Department of Cardiovascular, Kasr Alainy Medical School, Egypt, Tel: +20-1063065012; E-mail: medicenne@hotmail.com

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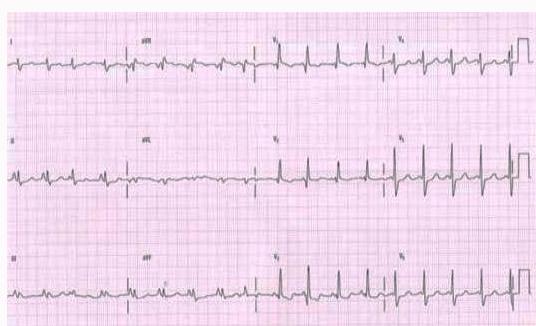


Figure 1: Showed ECG with P pulmonale and RV strain pattern.



**Figure 2:** Showed prominent pulmonary conus.



**Figure 3:** CT Brain revealed left parietal infarction area.

They are mostly benign and are the commonest submucosal mass in the stomach distinguishing GIST from other mesenchymal derived tumors was historically a challenge, since both can arise from the interstitial cells of Cajal, or GI pacemaker cells that form the interface between the autonomic innervation and smooth muscle of the bowel wall [1]. The distinction of GISTs based on molecular etiology was described by Hirota et al. in 1998, with discovery of a mutation in c-KIT encoding a pro-oncogenic receptor tyrosine Kinase (KIT) [2].

It is estimated that 4,500 to 6,000 new cases of GIST are diagnosed in the United States annually and most occur in the stomach (50% to 70%) or small intestine (20% to 30%) [3]. GISTs are often asymptomatic and discovered incidentally during surgery, endoscopic procedures, or imaging studies. However, the clinical presentation of some GISTs may include overt GI bleeding, abdominal mass, abdominal pain, or bowel obstruction and acute abdomen [4].

Pulmonary stenosis is about 15% of congenital heart disease in the adults, it may be caused by rheumatic or carcinoid syndrome, it may be isolated or associated with other anomalies as PFO patent foramen ovale, ASD or VSD [5-7].

In our case carcinoid syndrome was excluded as there is no symptoms and hydroxyindole acetic acid was normal and there is no features of thickening of pulmonary valve viewed by echocardiography and MEN 2B was also excluded as patient had no thyroid malignancy, it's the first reported case of patient with pulmonary stenosis complicated by stroke after benign resection of GIST tumor of stomach.

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