Spontaneous Regression of Large Gastric Carcinoid

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Abstract
We report a female patient who presented with an epigastric lump proved on open biopsy to be a carcinoid tumor. She had raised serum glucagon level and increased excretion of 5-hydroxy indoleacetic acid in the urine. She refused surgery and was followed up at 3 monthly intervals. At 6 months the tumor had decreased considerably in size. At one year it was no longer palpable and ultrasound examination clarified that there was no tumor. This was confirmed by the finding of normal levels of 5-HIAA in the urine.

Key words: Apudomas

Introduction
Carcinoid tumors (argentaffinomas) are a heterogeneous group of neoplasms of the enterochromafin cells of the gastrointestinal tract or equivalent cells in other organs. This peculiar cell belongs to a larger family of endocrine cells which share the common features of amine content precursor uptake and decarboxylation.1

Over 90% of carcinoids originate in the intestinal mucosa. These tumors make up 1% of all malignant lesions in the gastrointestinal tract and 8% of all neoplasms of the small intestine.2

We report a patient with a gastric carcinoid in whom the tumor disappeared spontaneously.

Case Report
A 40 years old female presented with moderate epigastric pain unrelieved by meals of 6 months' duration. She had noticed a non-tender epigastric lump 6 months ago. She had past history of hematemesis for which she had received transfusions of five bottles of blood. She had had attacks of bronchial asthma for the last ten years. On examination, she had no pallor or icterus and there was no cutaneous flushing. An oval epigastric lump was palpable, large, firm, non-tender, well defined, with a smooth surface, and moving well with respiration. There was no perigastric lymphadenopathy. For radiological examination, no palpable deposits in the pelvis. The other systems were clinically normal.

Relevant investigations: Hemogram was normal. Urinalysis and biochemical liver function tests were normal. Fasting blood sugar level was 138 mg/dl (7.6 mmol/L) and postprandial 360 mg/dl (19.8 mmol/L). X-ray chest was normal. Pancreatic function tests showed a normal FEV1/FVC ratio. Plain X-ray abdomen showed a circular soft tissue shadow adjacent to vertebral T7-L1, to the left of the midline.

On ultrasound examination of the abdomen, there was a well defined epigastric, echo-poor mass, 11 cm x 8 cm, with several internal echoes, in close proximity to the stomach. Gastric function showed a large ulcer on the lesser curvature. Histological examination of the upper biopsy specimen from the ulcer showed no evidence of malignancy. Barium studies (Fig 1) showed a soft tissue density posterior to the stomach, there was also a niche seen on the upper third of the lesser curvature. Normal rugae were lost in the middle third of the stomach. The duodenal cap appeared to be displaced anteriorly.

At endoscopy, a smooth fleshly pink growth was seen, which appeared to arise from the lesser curvature of the stomach. Its under surface showed a few cystic areas. The growth moved well with respiration. The liver was normal. Exploratory laparotomy revealed a vascular pear shaped mass arising from the lesser curvature of the stomach, 11 cm x 8 cm, adherent to the pancreas. Since raised IgE appearance suggested a sarcoid, the tumor was not excised, and radiotherapy was recommended after histological examination. The histological features were as follows:

On hematoxylin and eosin staining, small uniform cells, were seen arranged in a trabecular pattern, at places presenting pseudorosettes (Fig 2). The cell groups were separated by pink stroma. On ultrastructure, the neoplasm was composed of cells with large nuclei, with prominent nucleoli. The cytoplasm contained dense granules.
excision of the tumor, and was followed up at 3-monthly intervals. At the end of 6 months, the mass had decreased markedly in size, and at the end of 1 year it was not palpable. An ultrasound of the abdomen showed that the tumor was no longer identifiable. Her gastroscopy was now normal. Barium studies showed complete disappearance with the rugae normal in the middle third of the stomach (Fig 1). Her urinary 5-HIAA was 1.947 mg/24 h (10.2 nmol/d). Her blood sugar level was normal.

Fig 2: Photomicrograph showing a tumor composed of uniform cells arranged in pseudorosettes (H&E X 40).

Discussion
Carcinoid tumor of the stomach is rare, the incidence being 2-3% of all gastrointestinal carcinoids. The antral area is most frequently involved, followed by the greater or lesser curvature, the midgastic area, the cardia and the fundus. The lesions are usually single. Antral lesions commonly present as single or multiple polyps, varying in size from a few millimeters to 12 cm or more.

Though spontaneous regression is more common in benign tumors, it is not unknown in malignant tumors. This is particularly seen in breast cancers which reach quiescence after weaning. Malignant tumors are known to be affected by sudden metabolic alterations in the host organism. A surgical operation or infection may play a role. In our patient we feel the exploration and open biopsy were responsible for the senecence and death of the growth.7

There has been no case reported in the world literature of a large gastric carcinoid which has undergone spontaneous regression.

References
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