Choriocarcinoma – a rare association with squamous cell carcinoma of esophagus

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Extragenital choriocarcinoma involving the gastrointestinal tract is rare. We report a 60-year-old woman with squamous cell carcinoma of esophagus with a choriocarcinomatous focus. She was palliated with chemotherapy and an endoprosthesis. [Indian J Gastroenterol 2006;25:42-43]

Primary tumors of the upper gastrointestinal tract showing germ cell differentiation are extremely rare.¹ Extragonadal germ cell tumors including choriocarcinoma usually occur in men, involving the mediastinum, gastrointestinal tract, especially jejunum, stomach and esophagus, lungs, etc. They present either as pure forms or in association with predominant squamous cell / adenocarcinomas, and sometimes even with sarcomas.²

A 60-year-old woman presented with history of progressive dysphagia to solids, anorexia and significant weight loss of 3 months’ duration. On examination she had mild pallor and clubbing. Physical examination including gynecological examination was unremarkable.

**Investigations:** hemoglobin 9 g/dL; liver and renal function tests were normal. Upper gastrointestinal endoscopy revealed a friable, polypoidal, ulcerated growth in the lower esophagus extending into the cardia and causing luminal compromise. Histology of biopsy specimen from the lesion showed poorly differentiated squamous cell carcinoma with probable foci of choriocarcinoma (Fig). Ultrasonography showed well-defined rounded space-

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**Fig:** Photomicrograph showing highly pleomorphic, bizarre cells with mononuclear and multinucleate giant cells, suggestive of choriocarcinoma (H&E, 100X) with areas of necrosis and karyhorrhectic debris (inset) (H&E, 200X)
occupying lesions in the liver suggestive of metastases, with a mass involving the cardia and GE junction. The serum β-HCG level was 6064 mIU/mL (normal up to 10). High-resolution pelvic ultrasound and spiral CT of abdomen revealed no other sites of tumor.

In view of advanced stage of the tumor, palliative radiotherapy was planned but the patient refused. An esophageal self-expandable metallic stent was placed to relieve dysphagia. Chemotherapy with cisplatin was given.

Extragonadal germ cell cancer syndrome is characterized by occurrence in men less than 50 years, midline location (mediastinum, retroperitoneum), short duration of symptoms, increased β-HCG / alfa-fetoprotein, and good response to chemo/radiotherapy.²

Metastatic involvement of the liver is common with choriocarcinoma arising at gonadal site. However metastatic involvement of the esophagus by gonadal primary is very rare and has been found only with serosal involvement of esophagus in one case and submucosal deposits in another case.³

Attempts to treat extragenital choriocarcinoma have been unsuccessful. Regression of tumor or of metastasis may occur but actual cure has not been described.¹ Moreover pure germ cell tumors respond better than combined lesions with predominant squamous or adenocarcinomas.

Our case has unusual features: the occurrence of choriocarcinoma at an unusual site (esophagus) in a woman more than 50 years of age, and association with squamous cell carcinoma of esophagus. This histological combination has been reported only twice in world literature.³⁴

Theories proposed to explain visceral choriocarcinoma include retrodifferentiation of adult elements to form cells morphologically and functionally indistinguishable from trophoblasts, and metaplasia analogous to neoplasms of glandular cells that give rise to squamous epithelium capable of the highly specialized function of keratin formation. These explanations offer an alternative to the embryonic rest theory since the cells that morphologically and functionally resemble trophoblasts are not formed directly from primitive totipotential cells but are somatic in origin.

References

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