

# Gastric carcinoma with simultaneous Virchow's lymph node and liver metastases: a case report.

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## Citation

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## Abstract

Gastric carcinoma in advanced stage metastasizes to various organs but rarely to supraclavicular lymph node and sometimes in early stage, may metastasize to Virchow's node. Needle aspiration cytology with the help of clinical examinations, hepatic nodules on ultrasonography and an elevated liver function tests, can give a definitive diagnosis of gastric carcinoma. A 57-year-old male presented with continuous pain and distention of abdomen for 2 months. He had weakness, anorexia, weight loss and haemoptysis. Ultrasonography of liver showed hepatomegaly with multiple masses. Aspiration cytology of Virchow's node revealed secondaries of adenocarcinoma. Liver function tests detected elevation of enzymes. Endoscopy of stomach revealed a mass in the antrum. Biopsy showed moderately differentiated adenocarcinoma. Needle biopsy of liver nodules showed secondary deposits. He was finally diagnosed a case of carcinoma stomach with liver metastases. An uncommon case of simultaneous metastasis to Virchow's node and liver in gastric carcinoma is being reported.

## INTRODUCTION

Gastric carcinoma has a worldwide distribution with remarkable higher incidence in some parts of the globe. Patients of gastric carcinoma present in advanced stage when metastasis involves regional lymph nodes, liver, peritoneum, omentum, lungs and mesentery. They rarely metastasize to the supraclavicular lymph nodes<sup>1,2</sup>. However, sometimes in early stage of occult carcinoma, they may involve Virchow's node<sup>3</sup>. Liver is the commonest organ to be involved by metastasis, which manifests its own clinical features, rendering suspicion in diagnosis of gastric carcinoma. Needle aspiration cytology of supraclavicular node can provide a presumptive diagnosis. A clinical examination and a hepatic mass apparent on ultrasound examination or an elevated level of alkaline phosphatase help to arrive at a definitive diagnosis. We report a case metastasizing simultaneously to liver and Virchow's node.

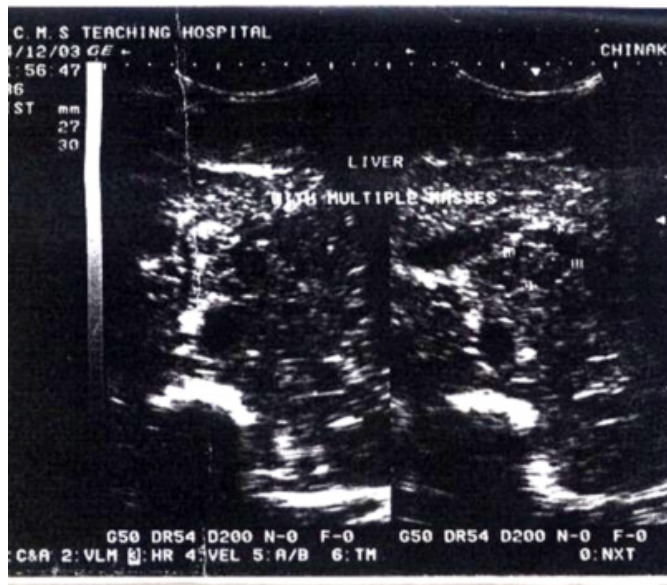
## CASE REPORT

A 57 years old male presented with continuous pain with exacerbation and distention of abdomen for 2 months. He had weakness, loss of appetite, weight loss of 7 kg, altered bowel and occasional haemoptysis during this period. He used to consume alcohol casually but had given it up after illness. On examination, the patient was found semiconscious, anemic, jaundiced and emaciated. A positive

fluid thrill, non-tender hard left supraclavicular lymphadenopathy (2x3 cm), tender hepatomegaly (4 cm. below right costal margin) with nodularity, mild splenomegaly (1½ cm. below left costal margin) were felt on palpation. He was provisionally diagnosed alcoholic cirrhosis and ascites. He had hemoglobin 7.6 gm/dl, white cell count 7,800/cu mm with normal differential and platelet count, and prolonged prothrombin time. Total serum bilirubin was 1.6 mg/dl, and serum alanine transferase, aspartate aminotransferase and alkaline phosphatase were 48, 65 and 362 U/L respectively. Ascitic fluid was blood stained with elevated protein and atypical cells. Ultrasonography revealed hepatomegaly with multiple nodules of varying sizes (Figure 1).

**Figure 1**

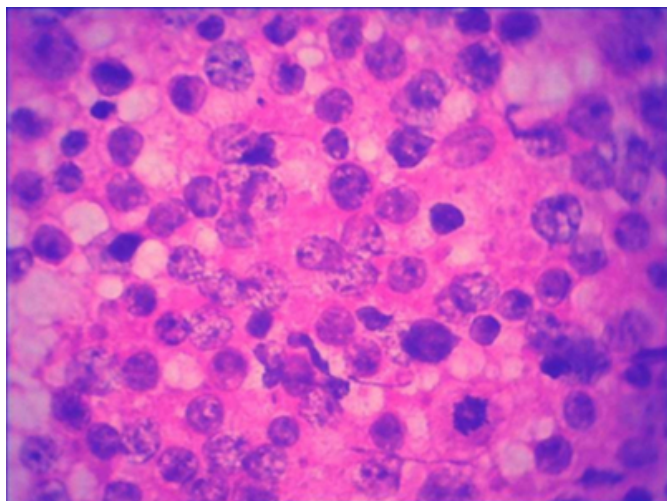
Figure 1: Ultrasonography of liver showing multiple masses of varying size



Needle aspiration cytology of lymph node showed features of malignancy (Figure 2).

**Figure 2**

Figure 2: Needle aspiration cytology of left supraclavicular lymph node showing moderately differentiated adenocarcinoma (Hematoxylin & Eosin x 400)



A mass obstructing the gastric outlet in antrum was found on endoscopy. Thereafter biopsy of the antral tissue resulted in diagnosis of moderately differentiated adenocarcinoma. The percutaneous needle biopsy of the liver showed evidence of secondary deposits. The patient was diagnosed of carcinoma stomach and metastasis to liver, and referred to a cancer hospital. There he underwent surgery and chemotherapy. His condition improved but the emaciated patient died after 2 ½

months.

## DISCUSSION

Most of the patients are asymptomatic in the early stage, hence they present in advanced stage of metastasis. Primary malignancies of abdomen and pelvis also metastasize significantly to the Virchow's node <sup>4,5</sup>. Occasional metastasis to parotid gland <sup>2</sup>, skin <sup>6</sup>, orbit <sup>7</sup> and some other locations have been reported. In a case study, a 67-year-old female patient was diagnosed of gastric carcinoma having Virchow's node metastases who successfully received curative resection following chemotherapy showing marked tumor remission and complete disappearance of metastases in the lymph node <sup>8</sup>. Another case report revealed lung and left supraclavicular lymph node metastases in a 74-year-old woman having gastric carcinoma with a subcutaneous metastatic gluteal tumor of poorly differentiated type <sup>6</sup>.

Lymphatic metastases to the cervical lymph node occur via thoracic duct. Migration of tumor emboli might be related to some pressure gradient in the thoracic duct or release of chemoattractants against tumor cell antigen in the channel leading it to left supraclavicular node. Metastases to liver from gastric adenocarcinoma convey a very poor prognosis. Only 10% of patients with hepatic metastases survive a year. Proper management and timely surgical interventions prolongs the survival of the patient and with aggressive surgery, five year survival rates of 90% have been reported from Japan <sup>1</sup>. Successful long survival was reported in a 46-year male after resection of stomach carcinoma and lymph node and liver metastases, and chemotherapy <sup>9</sup>. Wee et al diagnosed gastric adenocarcinoma in a case that had a liver mass <sup>10</sup>. Although, gastric carcinoma is more common in lower socioeconomic groups and mortality rate is high, long term survival is possible if patients present at an early stage.

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