

Case Report

GASTRIC ADENOCARCINOMA WITH RECURRENCE AT SKIN INCISION SITE

***Ashim Manta, Aseema Das, Swagata Dowerah and Mondita Borgohain**

Department of Pathology, Assam Medical College and Hospital, Dibrugarh

**Author for Correspondence*

ABSTRACT

Although there has been significant improvement in surgical treatment of gastric adenocarcinoma, recurrence rates remain high in advanced stage disease. Most cases show recurrence within 2 years after complete resection of gastric adenocarcinoma and the course is rapidly fatal. Recurrence can occur at any site. This report describes a case of recurrent gastric adenocarcinoma that occurred at the skin incision site. FNAC performed from the swelling over the skin incision site, revealed features suggestive of metastatic adenocarcinoma of the mucinous type. Our results were supported by Upper GI endoscopy and CECT abdomen which revealed recurrent stomach carcinoma with frank metastasis.

Keywords: Gastric Adenocarcinoma, Recurrence, Fine Needle Aspiration

INTRODUCTION

Although the incidence of gastric cancer has been declining substantially for several decades, it is still the fourth most common cancer and the second most frequent cause of cancer death (Shibata and Parsonnet, 2006; Parkin *et al.*, 2002).

Although the majority of patients with early-stage gastric cancer can have long survival times after surgery, approximately 40% of patients die from recurrence, even after undergoing curative surgery (Moriguchi, 1992).

The presence or absence of recurrence is widely considered to be the most important predictor for survival, as the prognosis for patients with recurrence is extremely dismal. We report a case of gastric adenocarcinoma with recurrence at the skin incision site.

CASES

Our case was a 55 year old male patient who had undergone subtotal gastrectomy with gastrojejunostomy (bilroth II) operation on March 2014. Post- operatively the patient did not take chemotherapy. After one year patient presented with a lump in the abdomen. He had the symptoms of heart burn, nausea and vomiting.

On examination a lump of size 2.5 X 2.5 cm² was noted in the midline anterior abdominal wall over the skin incision site. The swelling was non tender, hard and fixed.

Patient was investigated for routine blood examination, upper GI endoscopy, CECT abdomen. Subsequently Fine needle aspiration was advised from the abdominal swelling.

Blood examination revealed anemia. Upper GI endoscopy showed recurrent carcinoma in gastrectomy stomach with partial outlet obstruction.

CECT abdomen showed recurrent growth involving body of stomach and gastrojejunostomy stump with infiltration into adjacent liver, perigastric lymphadenopathy and metastasis.

FNAC was performed from the abdominal wall mass which revealed moderately cellular sheets and clusters of epithelial cells showing acinar pattern in a mucinous background. Some of the cells showed cytoplasmic vacuolation. Cytomorphology was suggestive of metastatic adenocarcinoma (mucinous type).

Patient was referred to a higher oncology center for treatment and was lost to follow up.

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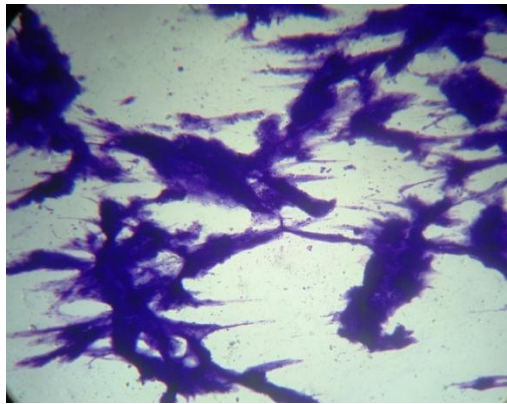


Figure 1: Showing sheets of malignant epithelial cells in a mucinous background (10x)

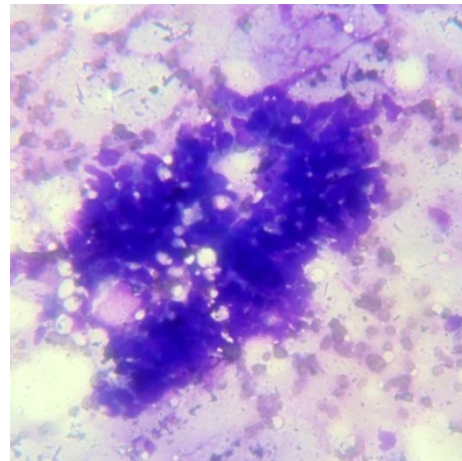


Figure 2: Epithelial cells with increased N:C ratio, moderate cytoplasm, prominent nucleoli (40X)

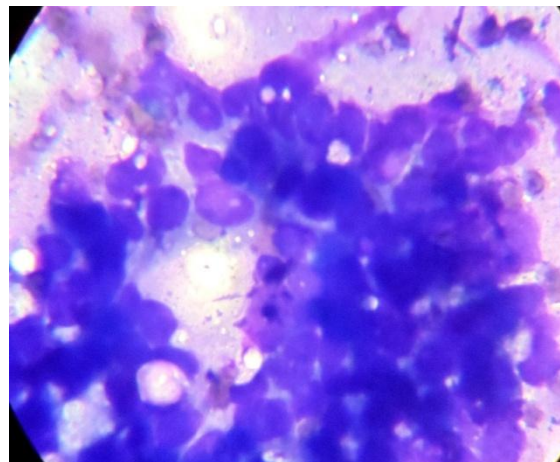


Figure 3: Malignant adenocarcinomatous cells (100X)

DISCUSSION

Recurrence is frequent in gastric cancer patients after undergoing radical gastrectomy. Recurrence of gastric cancer after gastrectomy tends to occur as early and late events. The factors that determine the timing of recurrence include stage of lymph node involvement, stage of the disease at admission, primary site of the tumor and vascular invasion (Lee *et al.*, 2003). Few studies have been done in identifying factors predicting early and late recurrence after gastrectomy and also time of recurrence. Early recurrence leads to death within the first two years after curative resection of gastric cancer, and the late recurrence is associated with more than two years of survival (Shiraishi *et al.*, 2000). It has been reported that the most common recurrence patterns are hematogenous recurrence and peritoneal dissemination in gastric cancer (Yoo *et al.*, 2000; Folli *et al.*, 1995; Lee *et al.*, 2003). Lymph node metastasis is the most important prognostic factor and predictor for recurrence in gastric adenocarcinoma after curative resection (Siewert *et al.*, 1998; Kim *et al.*, 1994; Wu *et al.*, 1997). Lymph node metastasis is positively correlated with depth of tumor invasion in gastric adenocarcinoma (Wu *et al.*, 1996). A high percentage of lymph node metastasis is noted in advanced gastric adenocarcinoma (Sarela *et al.*, 2003; Hyung *et al.*, 2001). In clinical practice, except lymph node metastasis, hematogenous spreading, peritoneal seeding and locoregional recurrence are other major recurrent routes for gastric adenocarcinoma after curative resection.

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Our patient was a recurrent case of carcinoma of stomach who had undergone subtotal gastrectomy with gastrojejunostomy (bilroth II) operation but did not take chemotherapy post-operatively. After 1 year he presented with an abdominal lump and also with metastasis as evidenced by upper GI endoscopy and CECT abdomen. FNAC performed from the swelling over the skin incision site, revealed features suggestive of metastatic adenocarcinoma of the mucinous type.

Yoo *et al.*, (2000) found that the mean time to recurrence was 21.8 months and peritoneal recurrence was the most frequent (45.9 per cent). Logistic regression analysis showed that serosal invasion and lymph node metastasis were risk factors for all recurrence patterns and early recurrence (at 24 months or less). In addition, independent risk factors involved in each recurrence pattern included younger age, infiltrative or diffuse type, undifferentiated tumour and total gastrectomy for peritoneal recurrence; older age and larger tumour size for disseminated, haematogenous recurrence; and older age, larger tumour size, infiltrative or diffuse type, proximally located tumour and subtotal gastrectomy for locoregional recurrence. Other risk factors for early recurrence were infiltrative or diffuse type and total gastrectomy.

Jianghong *et al.*, (2014) found in their study that 151 patients (33.6%) experienced recurrences. The median time to recurrence was 17.0 months, 113 (74.8%) patients had recurrences within 2 years. Peritoneal recurrence was the most prevalent pattern, followed by hematogenous metastasis in which the liver was the most common site. Depth of invasion, lymph node metastases, and negative expression of bcl-2 were independent risk factors for overall recurrence.

Sakurai *et al.*, (2013) reported a case of port site metastasis after laparoscopic assisted distal gastrectomy for gastric carcinoma.

Menzel *et al.*, (2005) reported a case of infrarenal aortic aneurysm whose detection permitted to discover gastric carcinoma.

Shimoyama *et al.*, (2000) diagnosed gastric cancer after nephroureterectomy for hydronephrosis due to ureteral metastasis.

Imachi *et al.*, (1993) reported metastasis from gastric adenocarcinoma to the uterine cervix.

Conclusion

Metastases to liver, lungs, bone, and adrenal glands are common events in advanced gastric carcinoma. Occasionally, metastases to other parts of the body, such as the prostate gland, the gluteal muscle, or the cervix are described. However, these are rare events in the natural history of the disease. We report an unusual case of a recurrent gastric adenocarcinoma which occurred at the skin incision site over the anterior abdominal wall which was diagnosed by FNAC. Our results were supported by Upper GI endoscopy and CECT abdomen which revealed recurrent stomach carcinoma with frank metastasis. To the best of our knowledge; this is the first reported case of skin site metastasis of recurrent gastric carcinoma. The possibility of metastatic carcinoma must be kept in mind while reporting FNA specimen from incision site in a known case of primary.

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