



Case Report

Synchronous tumors in an elderly patient – A rare case report

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ABSTRACT

A 70 year old male was admitted with abdominal pain, weight loss, vomiting, difficulty in eating both solid and liquid food & malena for 20 days. On clinical examination patient's conjunctiva is pale and his blood investigation shows Hemoglobin of 6 g/dl and Normocytic normochromic anemia in peripheral smear. Upper GI endoscopy shows ulceroproliferative growth in the antrum extending into pylorus with complete Gastric outlet obstruction Endoscopic gastric biopsy shows mucinous adenocarcinoma with invasion into muscularis propria. Abdominal CT scan shows a hyper vascular tumor in the Left kidney measuring 9x6x5 cms. Further subtotal gastrectomy and Radical left nephrectomy were performed. Final pathology report was Gastric adenocarcinoma (T2a) with renal cell carcinoma (T3a). Post operative period was uneventful. Elderly people with early gastric cancers have a relative higher probability of developing a synchronous tumour than younger people. The incidence of synchronous gastric cancer and RCC is quite low, and concomitant surgery is rare. It is appreciated that simultaneously both Subtotal gastrectomy and Radical nephrectomy can be performed without any major surgical complications. Our case report also alerts the treating physician to search for any synchronous cancers in the patient suffering from gastric cancer.

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1. Introduction

Synchronous tumor indicates two or more primary tumors diagnosed simultaneously (or) within 6 months to each other and Secondary or metachronous cancer denotes tumors developing more than six months after detection of a primary tumor.¹ It has been found that there has been increase in the incidence of gastric carcinoma due to sedentary life styles and environmental exposure. The incidence of synchronous gastric carcinoma with Renal cell carcinoma is quite low and concomitant treatment is rare.² Also the number of long term survivors of gastrectomy increases the incidence of secondary malignancies after gastrectomy.³ So here we present a case of synchronous Gastric cancer and Renal cell carcinoma with concomitant gastrectomy and nephrectomy and adjuvant chemotherapy.

2. Case Report

A 70 year old male presented with abdominal pain, weight loss, vomiting, difficulty in eating both solid and liquid food & malena since 20 days. On clinical examination patient's conjunctiva is pale and his blood investigation shows Hemoglobin of 6 g/dl and Normocytic normochromic anemia in peripheral smear. Upper GI endoscopy shows ulceroproliferative growth in the antrum extending into pylorus with complete Gastric outlet obstruction. Endoscopic gastric biopsy shows features of mucinous adenocarcinoma with invasion into muscularis propria. Abdominal CT scan shows a hyper vascular tumor in the Left kidney measuring 9x6x5 cms. Further subtotal gastrectomy and Radical left nephrectomy were performed. Subtotal gastrectomy was performed which shows circumferential grey white firm mass involves the gastric antrum infiltrating the muscularis layer (Figure 1).

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Fig. 1: Subtotal gastrectomy shows mass in the gastric antrum infiltrating the muscularis layer.

Bits from the gastric mass under 40x H&E – reveals pleomorphic tumor cells (Figure 2). The final pathology report shows Gastric mucinous adenocarcinoma. (Stage: T2a N1 Mx)

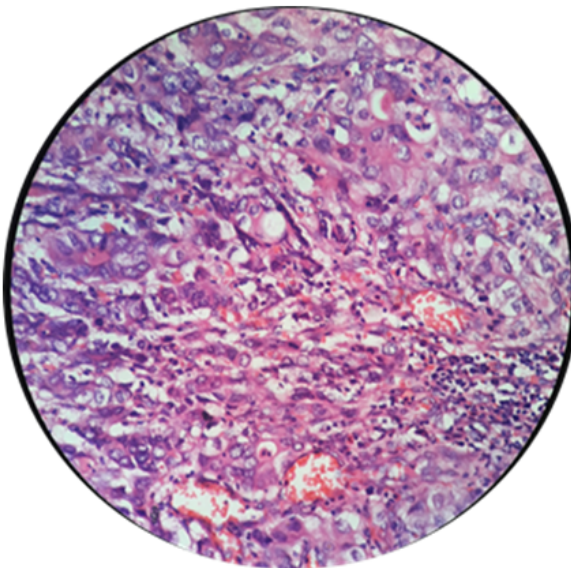


Fig. 2: H&E in 40x shows Pleomorphic tumour cells – round to oval with vesicular nucleus with prominent nucleoli.

Left nephrectomy specimen shows grey yellow to grey brown mass measuring 8x6cm in the lower pole of kidney which shows variegated appearance. (Figure 3)

Bits from the renal mass under 40x H&E – reveals individual tumour cells with clear cytoplasm with peripherally pushed nucleus (Figure 4). The final pathology report denotes clear cell type Renal cell carcinoma. (Stage: T3a N1 Mx)



Fig. 3: Left nephrectomy specimen shows grey yellow to grey brown mass in the lower pole of kidney.

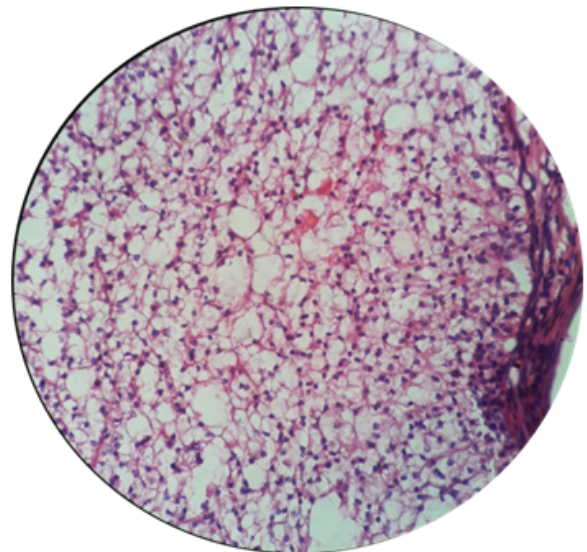


Fig. 4: H&E in 40x-Individual tumour cells show clear cytoplasm with peripherally pushed nucleus.

3. Discussion

The incidence of gastric cancer with a second, synchronously presenting primary cancer varies from 2.0-10.9%. Colorectal, lung, and liver cancers are frequently reported in the medical literature. However, synchronous RCC is rare. The incidence ranges from 0.11 - 0.37%, and the male-to-female ratio is 2:1.⁴

The incidence of synchronous cancer is higher in early-stage gastric cancers than in the advanced stages of the disease. Gastrointestinal symptoms are the most common

clinical manifestations in patients with synchronous cancer of the stomach and kidney.⁵ Unstable genetic status-microsatellite instability is a risk factors for second primary cancers in patients with gastric cancer. Negative TP53 and RAS mutations have been reported in patients with alimentary tract malignancies.⁶ Also the MSI-positive colorectal carcinoma have better prognosis than those with MSI-negative colorectal carcinoma.⁷ The 10-Year survival rates are 69% and 40% for gastric cancer patients without and with a second primary cancer.⁸

4. Conclusion

In conclusion our case highlights a rare occurrence of synchronous double malignancy consisting of gastric adenocarcinoma(T2a) with renal cell carcinoma (T3a). It is appreciated that simultaneously both Subtotal gastrectomy and Radical nephrectomy can be performed without any major surgical complications. Our case report also alerts the treating physician to search for any synchronous cancers in the patient suffering from gastric cancer.

5. Source of Funding

None.

6. Conflict of Interest

None.

References

1. Lam AY, Chan SY, Leung M. Synchronous colorectal cancer: clinical, pathological and molecular implications. *World J Gastroenterol: WJG*. 2014;20(22):6815.
2. Hu KN, Lai WH, Tseng PT, Wang WC, Shen KH. Synchronous primary gastric cancer and renal cell carcinoma: A case report and literatures review. *Urol Sci*. 2012;23(1):28–30.
3. Lundegardh G, Hansson LE, Nyrbn O, Adami HO, Krusemo UB. The Risk of Gastrointestinal and other Primary Malignant Diseases Following Gastric Cancer. *Acta Oncol*. 1991;30(1):1–6.
4. Ikeda Y, Saku M, Kishihara F, Maehara Y. Effective follow-up for recurrence or a second primary cancer in patients with early gastric cancer. *Br J Surg: ncorporating Eur J Surg Swiss Surg*. 2005;92(2):235–9.
5. Bae JS, Lee JH, Ryu KW, Kim YW, Bae JM. Characteristics of synchronous cancers in gastric cancer patients. *Cancer research and treatment. Official J Korean Cancer Assoc*. 2006;38:25.
6. Eom BW, Lee HJ, Yoo MW, Cho JJ, Kim WH, Yang HK. Synchronous and metachronous cancers in patients with gastric cancer. *J Surg Oncol*. 2008;98(2):106–10.
7. Weekes J, Lam AKY, Sebesan S, Ho YH. Irinotecan therapy and molecular targets in colorectal cancer: A systemic review. *World J Gastroenterol*. 2009;15(29):3597.
8. Ikeda Y, Saku M, Kawanaka H, Nonaka M, Yoshida K, et al. Features of Second Primary Cancer in Patients with Gastric Cancer. *Oncol*. 2003;65(2):113–7.

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