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Case Report

'Away from home' extra hepatic hepatocellular adenocarcinoma in gastric fundal submucosa

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ABSTRACT

Patient presented with upper gastrointestinal bleeding which was scoped and diagnosed as bleeding gastrointestinal tumour intra procedure, subjected to laparotomy and wedge resection with unchanged postoperative diagnosis. Only later to find out the tissue was interpreted as metastases hepatoid adenocarcinoma without primary liver pathology. Thus likely point towards malignancy changes of undiagnosed ectopic liver tissue on gastric wall.

Keywords: Extra hepatic hepatocecular carcinoma

INTRODUCTION

Extrahepatic liver tissue is a rare intrabdominal lesion that can occur in various locations including gallbladder, hepatic ligaments, omentum, retro peritoneum and thorax with studied incidence of 0.24–0.47%.[1] Albeit most commonly found in gallbladder, stomach ectopic liver tissue having higher possibility of becoming cancer.[2]

CASE REPORT

80 years old Chinese lady with underlying hypertension presented with malaenic stool for 3 days whereby she had CT abdomen done in private centre prior to admission to our hospital which shows cholelithiasis and narrowing of distal ileum suggestive of adhesion. No liver mass noted.

She was investigated for non-variceal upper gastrointestinal bleeding with OGDS done which shows bleeding gastrointestinal tumour which then underwent exploratory laparotomy and wedge resection of gastric gastrointestinal stromal tumour day 3 of admission with intraoperative finding of large 8×6 cm multilobulated submucosal gastric fundus lesion with adherence to diaphragm. Post operatively she had a good recovery and discharged well.

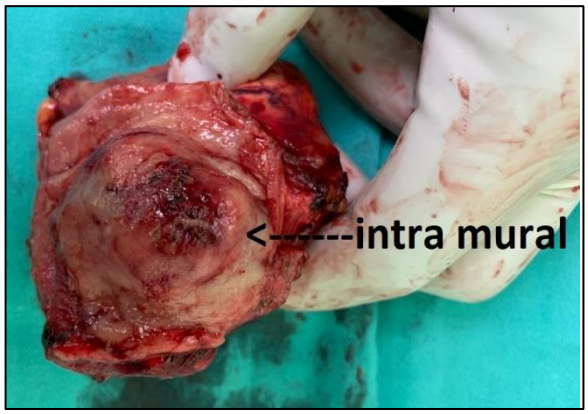

Figure 1: Resected part of stomach intramural view.

Specimen sent for HPE came back as metastatic hepatocellular carcinoma with clear margin. Immunohistochemistry stain positive for pan cytokeratin

CKAE1/AE3 and Hepatocyte (HepPar). Her HPE sample then sent for second opinion which later interpreted as carcinoma with hepatocellular differentiation involving outer layer of gastric wall.

Figure 2: Ex-vivo examination of lesion – halved to see intralesional tissue architecture.

In conclusion, macroscopic appearance from esophagoduodenoscopy and intraoperative findings must always have regarded subjective until tissue diagnosis obtained. As incidental extra hepatic hepatocellular carcinoma is a rare occurrence, more over with normal liver architecture such in this case, and unrelated upper gastrointestinal bleeding during initial presentation, characterised this case as interesting.

DISCUSSION

Several theory proposed for extrahepatic liver tissue to develop. Namely anomalous embryological developments such as migration or displacement of a portion of the cranial part of the liver bud to other sites - especially true for ectopic liver. Other than that, trapping of hepatocyte-destined mesenchyme as well as entrapment of cell nests in various foregut region following diaphragm or umbilical ring closure3. Uniquely Specific theory for accessory liver tissue in gallbladder that is, the destined ectopic cell underwent atrophy thence regressed from the main liver.[4] Lastly, Dorsal budding of hepatic tissue before closing of the pleuroperitoneal canals also theorized to be one of the possible reason.[5]

Despite the finding of hepatocellular carcinoma, her CT scan of liver was normal and with normal tumour marker, she had PET CT and MRI done in private which shows no liver lesion. Although Hepatoid adenocarcinoma are expected to arise in gastric mucosa, in this case it is in outer layer of gastric wall, accompanied by non-neoplastic gastric mucosa hence favouring metastatic liver lesion. However as primary in the liver not seen radiologically and clinically. This raised the possibility of hepatocellular carcinoma arising from heterotopic liver tissue in stomach.

Radiological diagnosis are challenging due to small lesion size thus most of cases diagnosed from surgical resected HPE or autopsy. Although most of cases are clinically silent, symptomatic ectopic liver can presented as abdominal pain due to torsion, obstructive features due to compression to adjacent organ, or intraperitoneal bleeding. As of this case, malignant degeneration to hepatocellular carcinoma.[6]

Malignancy changes are more likely happens in extrahepatic tissue due to several possible theories such as incomplete developed vasculatures of tissue despite possible functional architecture but limited metabolically which may lead to chronic inflammation, cirrhosis and various carcinogen exposure which subsequently increased neoplastic capabilities to become hepatocellular carcinoma.[7] Therefore, HCC could arise in extrahepatic liver tissue regardless of cirrhosis or viral carcinogenesis predisposing factors.

Classification of ectopic HCC divided into four types as per Collan et al namely: accessory liver lobe, small accessory liver lobe, ectopic liver, and microscopic ectopic liver.[8] Accessory liver lobe is a large liver lobe still attached to the mother liver whereby its considered small accessory liver lobe if weighing 10–40 g. Microscopic ectopic liver is a small liver tissue found occasionally on the wall of the gallbladder and as this case, ectopic liver is when the liver tissue is distant and not connected to the mother liver.

For a favourable prognosis, free margin excision is mandatory for a favourable prognosis especially when the carcinogenetic potential usually limited to the ectopic liver itself.

CONCLUSION

The management of segmental resection with complete margin was appropriate for this case. Subsequent follow op was done for her after 1 year of operation including CECT abdomen and PET scan which still shows no liver pathology.

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