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An Unusual Reach of Gallbladder Cancer: A Case Report

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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Case Report

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ABSTRACT

Introduction: Gallbladder cancer (GBC) is one of the common malignancies of the biliary tree but due to its non-specific presentations it always presents in advance stage. Poor prognoses of GBC are due to early metastasis into the Liver bed and the regional lymph nodes (LNs). Extra-abdominal metastasis is rare in GBC and here we are presenting a case of gallbladder cancer with bilateral inguinal lymph node metastasis.

Case Report: A 69-year-old male presented with complains of yellowish discoloration of the eye and urine for 3 months and swelling over the left groin, fever, pain abdomen and loss of appetite for 1 week. Systemic examination revealed gallbladder mass and bilateral inguinal lymphadenopathy. CT scan and FNAC confirm carcinoma gallbladder with metastatic adenocarcinoma.

Discussion: Carcinoma Gallbladder is the most common biliary tree malignancy with as high as 80-95% incidence. The cystic and pericholedochal LNs are the first sites to get involved in the lymphatic spread [1]. There are three major pathways of lymphatic's spread for CGB which ultimately drains into aortocaval LNs. Lymphatic channel blockage by tumor cells leads to the flow of the lymph into retrograde fashion into some unusual sites. Similarly in our case also retrograde flow must have involved the paraaortic LNs from where it must have spread into the pelvic and bilateral Inguinal LNs.

Conclusion: To conclude, bilateral inguinal metastasis is possible in CGB due to retrograde lymph flow due to lymphatic obstruction.

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Keywords: Carcinoma gallbladder; lymphatic spread; retrograde lymph flow; inguinal lymph node.

1. INTRODUCTION

Gallbladder cancer (GBC) is one of the common malignancies of the biliary tree but due to its non-specific presentations, it always presents itself in the advanced stage [1]. Poor prognoses of GBC are due to early metastasis into the Liver bed and the regional lymph nodes (LNs) [2]. GBC is usually an incidental finding (0.25-3%) and mainly detected during or after laparoscopic cholecystectomy for gallstone diseases [3]. Extra-abdominal metastasis is rare in GBC [4] and here we are presenting a case of gallbladder cancer with bilateral inguinal lymph node metastasis.

2. CASE REPORT

A 69-year-old male presented with complaints of yellowish discoloration of eyes and urine for 3 months and fever, pain abdomen and loss of appetite for 1 week. The patient noticed yellowish discoloration of eyes and urine 3 months back for which he took some herbal medicine following which the severity has increased. The yellowish discoloration of eyes is progressively increasing. The Patient also gave the history of occasional generalized itching. The patient noticed multiple swelling in his left groin 1 week after the starting of the herbal medicine and it was progressively increasing, and not associated with pain. On the initial assessment, the general condition of the patient was very poor. The Patient was cachectic, dehydrated and icteric. Abdominal examination revealed a solitary oval mass in right hypochondrium. It was hard in consistency, non-tender and moves with respiration. The rest of the examination was within normal limit. There was no cervical lymphadenopathy. There were multiple (LNs) in bilateral inguinal regions. The left-sided lymphadenopathy was larger compared to the right side. LNs were hard and non-tender with partially restricted mobility. There's no skin lesion in neither lower limbs, nor he underwent any instrumentation or surgical procedure in the groin or limbs. The biochemical investigation revealed deranged Liver function test (Total Bilirubin: 19.88 mg/dl, Conjugated: 10.54 mg/dl, Unconjugated: 9.34 mg/dl and Alkaline phosphatase: 790 U/L). USG abdomen detected a focal mass lesion in the Gallbladder and no evidence of gallstones. CT scan showed dilated Gallbladder with focal, eccentric irregular wall thickening with mild contrast enhancement (Fig. 1) with marked dilated Intrahepatic Biliary radicals and abrupt narrowing of the proximal common hepatic duct. There was no evidence of any obvious invasion into the adjacent structures or any distant metastasis. Fig. 2 shows bilaterally enlarged, discrete, contrast enhancing inguinal lymph nodes with the loss of normal architecture. The size was approximately 3.7×3.2 cm and 2.0 × 1.6 cm of the left and the right inguinal lymph nodes respectively. FNAC from the left inguinal lymph node confirms metastatic adenocarcinoma. The Demerit of this case report is the Positron Emission Tomography (PET) scan, tumor marker and Immunohistochemistry (IHC) studies which are not available in our hospital were done. Our plan was to do Percutaneous Transhepatic Biliary Drainage (PTBD) followed by chemotherapy after the general condition of the patient improves. In View of his advanced disease and poor socioeconomic status, the patient refused further treatment.

3. RESULTS AND DISCUSSION

Carcinoma Gallbladder is the most common biliary tree malignancy with as high as 80-95% incidence [5]. The highest incidence of CGB has been reported from India, Asia, Europe and South America [6]. The incidence of CGB in India is 1.8% [7]. The incidence of CGB rises progressively with age and two to six times more common in females. Among all the risk factors, Gallstones contributes as high as 70-94% [6].

Clinical features of CGB is non-specific and mimic symptoms of cholecystitis or other benign gallbladder pathology and that is why it leads to a low index of suspicion for cancer in most of the cases [8]. In older patients, the history of pain abdomen with the recent onset of weight loss should raise the alarm. The pain will be diffuse compared to crampy right upper quadrant pain as seen in biliary colic [9]. Symptoms of persistent pain, weight loss, anorexia, jaundice, and a palpable right upper quadrant mass are typically indicative of advanced disease [10].

CGB can spread either by direct invasion or by the lymphatic, vascular, neural, and intraperitoneal and intraductal route. It mainly metastasized to the liver, LNs, adjacent organs, and peritoneum. The locoregional spread is more common than distant metastasis [11]. The cystic and pericholedochal LNs are the first sites to get involved in the lymphatic spread [1]. CGB spread via various pathways. The primary route is called

the cholecystoretropancreatic pathway where the lymphatic from GB drains into the LNs along the cystic duct and common bile duct and then to the nodes posterior to the duodenum and pancreatic. The secondary route is the cholecysto-celiac pathway in which lymphatic's drainage through the gastrohepatic ligament to retroportal and right celiac LNs and the third pathway is the cholecysto-mesenteric pathway where it drains the posterior aspect of GB to the aortocaval LNs via the pancreas [11].

There are reports of CGB metastasis to the Stomach, duodenum, colon, breast, orbit, skin, ovaries, umbilicus and bones also [7,12]. Retrograde tumor spread is a known fact. There are only a few reported cases of CGB metastasized into inguinal LNs [4,7]. Lymphatic channel blockage by tumor cells leads to the flow of the lymph into retrograde fashion into some unusual sites [13]. Similarly, in our case also retrograde flow must have involved the paraaortic LNs from where it must have spread into the pelvic and bilateral Inguinal LNs.

Combined chemotherapy is the standard of care in Inoperable CGB i.e. Metastatic or locally advanced with overall survival of 12 months [14].

Fig. 1. CT scan showed dilated Gallbladder with focal, eccentric irregular wall thickening with mild contrast enhancement with marked dilated Intrahepatic Biliary radicals and abrupt narrowing of the proximal common hepatic duct (White arrow)

Fig. 2. CECT Pelvic Region shows bilaterally enlarged, discrete, contrast enhancing inguinal lymph nodes with the loss of normal architecture. The size was approximately 3.7×3.2 cm and 2.0 × 1.6 cm of the left and the right inguinal lymph nodes respectively (White arrows)

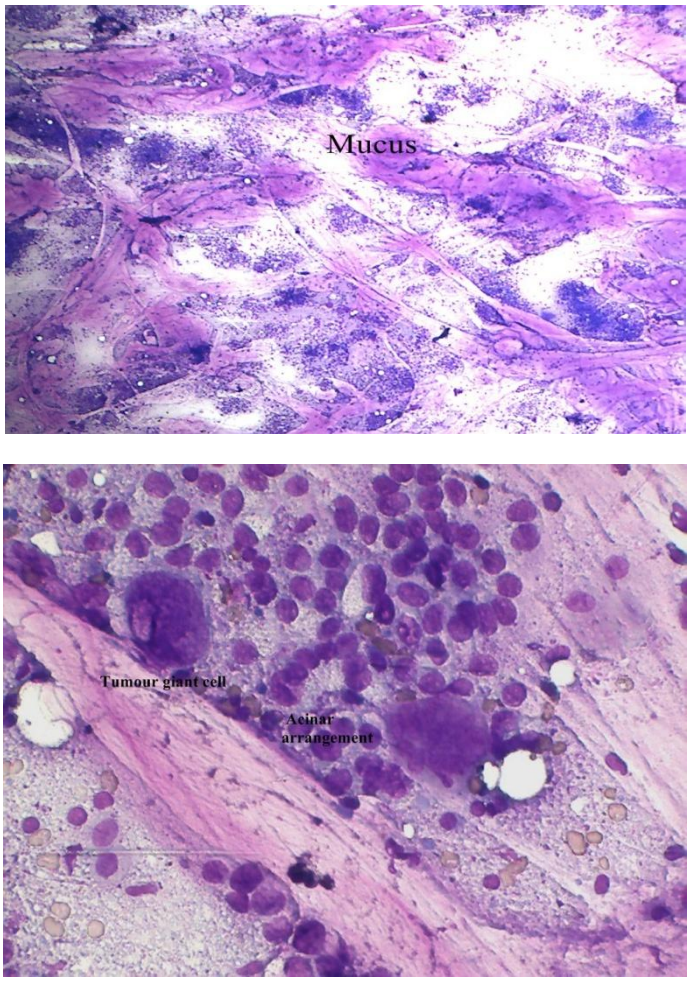

Fig. 3. Cell-rich smears containing cohesive clusters, sheets, and fragments of malignant cuboidal epithelial cells and occasional tumor giant cells. Acinar differentiation is seen. The background contains mucinous material and some lymphoid cells

3a) Cellular smear with abundant Mucus [MGG stain]
3b) Magnified view

4. CONCLUSION

To conclude, tumor spread via lymphatics from Gall Bladder to inguinal lymph nodes is not a usual pathway and lymphatic blockade resulting in retrograde lymph flow and spread of tumor cells in unusual sites like inguinal lymph node is also to be considered in Carcinoma Gallbladder.

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CONSENT

As per international standard or university standard, patient's consent has been collected and preserved by the author.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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