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ABDOMINAL WALL METASTASIS OF HEPATOCELLULAR CARCINOMA-AN UNUSUAL PRESENTATION.

Pathology

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ABSTRACT

We report a case of 60 year old male with a swelling in the right iliac fossa which presented as desmoid tumour clinically and was later found to be metastasis from hepatocellular carcinoma.

KEYWORDS

INTRODUCTION

Hepatocellular carcinoma (HCC) is the most common primary tumor of the liver and the third leading cause of cancer related death[1,2]. Over the past 20 years, the incidence of HCC has become doubled from 2.6 to 5.2 per 100,000 populations[3]. The incidence of HCC in developing nations is over twice the incidence of that in developed countries. Chronic liver disease and cirrhosis are the most common risk factors for development of hepatocellular carcinoma. The most common site for metastasis includes lungs and lymph nodes followed by bones[4]. Unusual sites of metastasis are diaphragm , pancreas, gall bladder, stomach, colon, adrenal gland, pleura, peritoneum, soft tissue, brain and skin.

CASE REPORT

A 60 year old male patient presented with a painless mass on the anterior abdominal wall in the right iliac fossa which was clinically suspected to be Desmoid tumour.. Patient had a history of similar swelling in the past which had been excised . Initial investigations done were FNAC and ultrasound abdomen. USG abdomen showed mixed echogenic SOL in the paries of anterior abdominal wall in RIF and was provisionally diagnosed to be Desmoid tumour or Rhabdomysosarcoma FNAC revealed high cellularity with cells showing abundant eosinophilic granular cytoplasm, anisonucleosis, prominent large central nucleolus and nuclear hyperchromasia in areas and diagnosis of a malignant lesion of undetermined origin was given (Fig-1). Patient was HBsAg ,HCV and HIV non reactive. Subsequently, MRI abdomen showed a 6.4x4.6x6.3 cm malignant lesion in the anterior abdominal wall in the right iliac fossa and mixed intense lesion in segment VI of liver measuring about 2.3 x 2.1cm. Wide local excision of the abdominal wall tumour was done and sent for histopathological examination. Macroscopic examination revealed a single encapsulated soft tissue mass measuring 10.0 x 9.0 x 5.0 cm with grey white to grey brown, irregular and partly smooth external surface. On cut section the tumour was solid and partly cystic, variegated , nodular, chalky, pale grey and well encapsulated(Fig 2). On microscopy, multiple sections studied showed predominantly trabecular pattern of arrangement showing cords of cells separated by sinusoids lined by endothelial cells , focal areas show arrangement of cells in clusters and sheets with intervening thick fibrous septae . Tumour cells were polygonal to pleomorphic in shape showing high degree of pleomorphism with vesicular nuclei, macro nucleoli, dispersed chromatin and abundant granular eosinophilic cytoplasm(Fig-3). Based on the microscopic examination a provisional diagnosis of metastatic deposits probably from hepatocellular carcinoma was considered. The diagnosis was confirmed by immunohistochemistry with positivity for Hep-Par1antigen(Fig-4). The tumour was negative for Reticulin , PAS stains and Myosin, desmin and BCL-2 antigens which rules out the possibility of desmoid tumour or Rhabdomyosarcoma.

DISCUSSION

Hepatocellular carcinoma is asymptomatic at early stages. Metastasis of HCC occurs frequently by way of intrahepatic blood vessels , lymphatic permeation or direct infiltration. Primary presentation of HCC with abdominal wall metastasis is unusual. In the present case depending upon the site, size and recurrence of the tumour clinical diagnosis of Desmoid tumour was suspected. Subsequently based on MRI and FNAC findings possibility of a malignant lesion was considered and the tumour was resected and sent for histopathological examination revealed a diagnosis of metastasis from hepatocellular carcinoma which was confirmed by immunohistochemistry. The difficulty encountered in diagnosing this case was due to the unusual site of metastasis and no clinical signs and symptoms of hepatocellular carcinoma in the patient. Very few cases of metastasis of hepatocellular carcinoma in the abdominal wall have been found in the literature. Alshabyli reported a case of metastasis of HCC in abdominal wall [5]. P Patil et al. reported a case of metastasis from HCC in the right rectus muscle [6].In a study by Katyal et al., tabulation of all extra hepatic metastatic sites showed the most common sites to be the lung in 81 (55%) patients, abdominal lymph nodes in 60 (41%) patients, and bone in 41 (28%) patients[7]. Rare sites of metastasis include bone and skeletal muscle. A case of HCC with adrenal gland metastasis was reported by kitagawa Y[8]. Hofmann et al. reported metastasis to the anterolateral right chest wall from HCC[9]. Coban et al. reported metastasis to the anterior chest wall in form of a left axillary mass[10].In the study by Horita et al., bony metastasis to the sternum from HCC was demonstrated [11]. This is one of the rare instances of bony metastatic HCC. Munk et al. demonstrated metastasis in HCC to sacrum and gluteus muscles while Matsunaga et al. found extrahepatic metastasis to the distal phalanx of a finger [12]. Darzi et al demonstrated abdominal wall metastasis following HCC after laparoscopy[13].

CONCLUSION

High degree index of suspicion, extensive radiological imaging , preoperative cytomorphological study by FNAC compounded by histopathology and immunohistochemistry paved the path for confirmed diagnosis of a rare metastatic presentation of hepatocellular carcinoma.

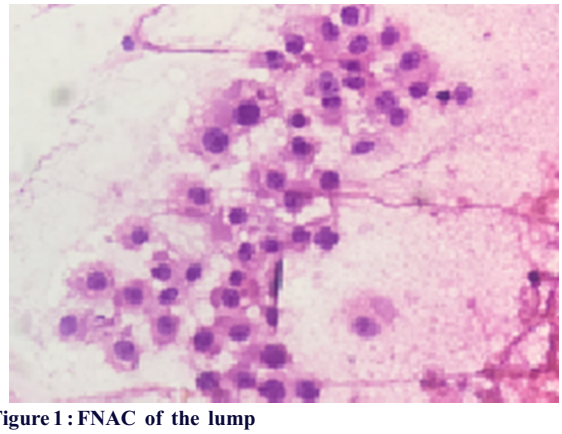

Figure 1 : FNAC of the lump

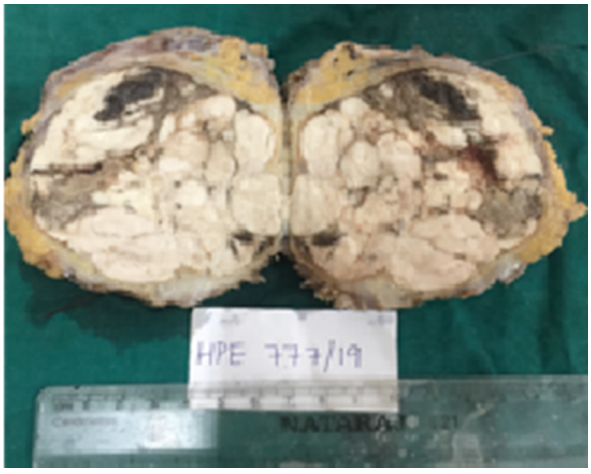

Figure 2 :Cut section of the specimen

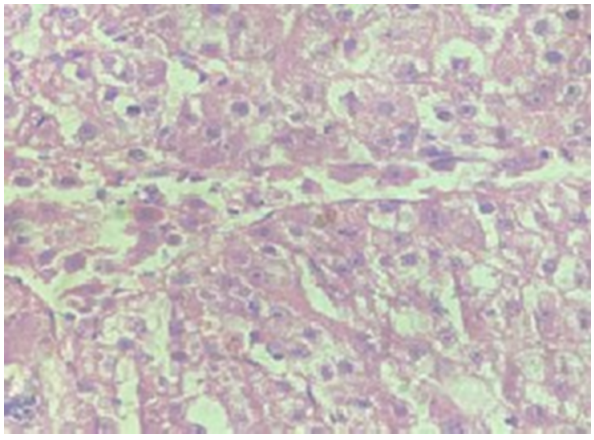

Figure 3 :Histopathology of the specimen

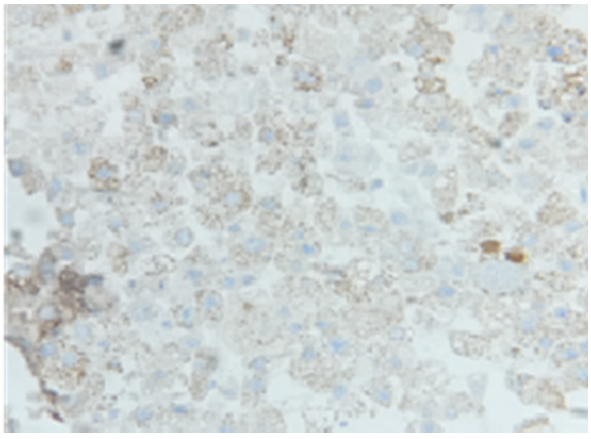

Figure 4 : Hep Par 1 positivity

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