Retroperitoneal Malignant Melonoma – A Curiosity

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ABSTRACT

This is a case report of an extremely rare primary malignant melanoma, presenting in the retroperitoneum of a 76 year old male. USG and CT scan revealed a large retroperitoneal, well defined, 8.6x5.1cm mass in the retrocaval compartment, displacing the IVC anteriorly. Multiple tiny, hypodense/cystic, hepatic metastases were seen predominantly in the superior segments of the right lobe. Minimal peritoneal free fluid was seen. Fine needle aspiration cytology revealed features which were suggestive of malignant melanoma, which was followed by a biopsy of the retroperitoneal mass. The histopathology of the biopsy was suggestive of malignant melanoma. The detailed clinical history revealed that there was no previous melanoma which was excised or regressed, and that the patient did not have any lesions on the skin or in the eyes or in the gastrointestinal tract. So, the case was diagnosed as primary retroperitoneal malignant melanoma – A RARE FINDING with only 5 cases in the literature.

Key Words : Melanoma, retroperitoneum, malignant

KEY MESSAGES:

1) Retroperitoneal malignant melanoma is rare.
2) Only five cases have been noted in the literature.
3) There are no primary skin, eye or gastrointestinal lesions.

INTRODUCTION

Malignant melanoma is a tumour arising from the melanocytes which are derived from the neural crest. The neural crest migrates during the embryological development and may be found in the non cutaneous sites, with a predisposition to the possibility of developing melanoma in adult life [1].

Malignant melanomas, especially of the skin, are easily diagnosed, but some, particularly those presenting as non cutaneous primaries or as metastatic disease, may closely mimic other tumours.[2]

As the late Arnold Levene remarked in a review article which was published 20 years ago, among the difficult diagnostic fields in histopathology, melanocytic tumours have achieved notoriety.[3]

They most commonly occur in the head and neck region, followed by the visceral organs and are rarely metastatic with unknown origin, which accounts for 5-10% of the cases[4]. They also can present with multiple primary lesions.[5].

Here, we present a rare case of 76 yr old male with primary retroperitoneal malignant melanoma, with multiple metastatic deposits.

CASE REPORT

A 76yr old male presented with pain and distension of the abdomen since 2 weeks, followed by fever and vomiting since 4 days. On examination, the patient was found to have pallor, a distended abdomen with tenderness, rigidity and ascites. The routine haematological examination and biochemical tests including the liver function test showed values which were within normal limits, although the patient was anaemic. The patient was negative for hepatitis B and C. The ascitic fluid analysis revealed a predominance of lymphocytes, with reactive mesothelial cell clusters. USG and CT scan were carried out, which revealed a well defined, 8.6x5.1cm, heterogeneously enhancing mass in the retrocaval compartment, which displaced the IVC and the II and III rd part of the duodenum anteriorly. The mass was also seen to be protruding into the retro aortic region. Mild free fluid was noted in the abdomen. Multiple small, hypodense or cystic lesions were noted in the liver, which were more marked in the superior segments, thus suggesting the presence of metastatic lesions.

CT guided fine needle aspiration cytology was carried out, which revealed a highly cellular smear with neoplastic cells which were arranged in clusters and singles. These cells had pleomorphic hyperchromatic nuclei, with large prominent eosinophilic nucleoli and moderate eosinophilic cytoplasm. Binucleate and multinucleate cells were noted, with few cells showing intracytoplasmic melanin pigment. The background was haemorrhagic. The case was reported as positive for malignancy with a suspicion of malignant melanoma.

By taking all aseptic and pre-operative precautions, the biopsy of the huge retroperitoneal mass was done and the histopathology report was suggestive of malignant melanoma.

The detailed clinical history showed that there was no previous melanoma which was excised or regressed and that the patient did not have any lesions on the skin or in the eyes or in the gastrointestinal tract.. So, the case was diagnosed as primary retroperitoneal malignant melanoma.

DISCUSSION

Malignant melanoma of unknown origin accounts for 5-10% of the melanoma cases.[4]

Whenever melanoma is found in the GIT or in any other retroperitoneal site, a primary cutaneous lesion is nearly always documented. It is rarely absent, as in the present case. Our patient did not have any skin lesion, nor did he have any relevant past history of melanoma.[6]

Metastatic melanoma in the GIT is suspected in patients with a history of melanoma, pain in the abdomen, vomiting, malena, altered bowel habits or anaemia.[7, 8]. In the present case, the patient presented with a huge retroperitoneal mass, with no other gastrointestinal symptoms which suggested a primary retroperitoneal tumour.

Melanomas of the skin are easily diagnosed, but some particularly non cutaneous primaries or metastatic deposits may closely mimic other tumours, thus misguiding the diagnosis.[2]

Most of the retroperitoneal masses are sarcomas or tumours arising from the adrenal gland.[9] The present case was initially suspected as sarcoma on the basis of the CT scan findings, as the rest of the retroperitoneal tissues, the adrenal gland and the kidney were within normal limits.

Malignant melanomas show lot of variation in the cytomorphological architecture and the stromal components.[2]
The biopsy of the mass showed atypical cells which were arranged in sheets. The cells were pleomorphic, with a hyperchromatic nucleus. Intracytoplasmic melanin pigment and tumour giant cells were also seen.

The patient workup was done to look for any cutaneous and gastrointestinal lesions. No lesions were seen on the skin or in the GIT . The patient refused further management and treatment procedures.and he died after two weeks following his discharge.

CONCLUSION

Malignant melanoma arising in the retroperitoneum is extremely rare and almost all cases which have been reported so far, were of adrenal origin. Only four cases of malignant melanoma have been documented, which appeared to have originated from the retroperitoneum, which was a site which was other than the adrenal gland.[9]

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