Malignant melanoma of the gallbladder

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Summary

We report a case of primary malignant melanoma of the gallbladder with review of the literature and comment on the frequency of secondary deposits of melanoma within the small bowel.

KEY WORDS: gallbladder, malignant melanoma.

Introduction

A total of only 10 cases of primary malignant melanoma of the gallbladder previously reported (Peison and Rabin, 1976) attests to the extreme rarity of this condition. We present one further case.

Case report

A 45-year-old housewife presented with a 9-month history of malaise and episodes of right upper abdominal colic radiating through to her back, and accompanied by vomiting and possible transient jaundice.

On examination, she was pale but anicteric. In the right hypochondrium, a mobile tender mass was palpable, consistent with a mucocele of the gallbladder. Rectal examination was normal, but the faeces were positive for occult blood testing.

Full blood count showed a haemoglobin of 6.5 g/dl with a hypochromic microcytic picture. Liver function tests were normal. A double dose oral cholecystogram showed no opacification of the gallbladder. An ultrasound scan of the upper abdomen revealed a distended gallbladder containing biliary sludge and some calculi, but with no evidence of dilated bile ducts. Barium meal examination was normal.

After transfusion, laparotomy was performed for suspected cholelithiasis. The gallbladder was distended and tense with melanotic plaques measuring 3-4 cm in diameter on its serosal surface. Melanotic deposits were also noted in the coeliac axis, lymph

nodes and the small bowel mesentery. There were jejunal metastases, one with mucosal ulceration probably accounting for the occult gastrointestinal bleeding.

The gallbladder and small bowel deposits were resected and a choledochojejunostomy-en-Y was performed. When the gallbladder was opened, separate polypoidal melanotic tumours, approximately 4 cm in diameter, were noted to arise from its wall and protrude into the lumen. The viscus was full of melanotic debris. Histological examination confirmed the presence of malignant melanomas.

Subsequent thorough inspection failed to reveal any obvious primary melanoma in the skin, mouth or eyes, and there were no symptoms or signs to suggest a meningeal tumour.

After an uneventful postoperative recovery, the patient soon developed pulmonary metastases and she died of melanomatosis 5 months later.

Discussion

Ten cases of primary malignant melanoma arising in the gallbladder have been previously reported in the literature (Peison and Rabin, 1976). The presenting symptoms suggested cholelithiasis or cholecystitis in 6 out of 10 cases in which the definitive diagnosis was made at cholecystectomy. The other 4 were diagnosed at post-mortem examination. Seven of the ten had extra-biliary metastases; in 2 cases, there were deposits in the jejunum.

The characteristics of primary malignant melanoma of the gallbladder that serve to distinguish it from metastatic involvement are the size of the tumour and its morphology. All 10 primary tumours measured 2-4 cm in diameter whereas secondary melanotic deposits in the gallbladder only measured a few millimetres (Willis, 1952). Primary tumours are polypoid in nature and arise directly from the gallbladder wall in contrast to the flat sub-epithelial

nodules characteristic of metastases. On these grounds, the present case can be classified with some confidence as one of primary malignant melanoma of the gallbladder with secondaries in the small bowel.

Secondary deposits of melanoma within the small bowel are by no means unusual (Moodie *et al.*, 1976). If immunological mechanisms are important in protecting the small bowel against cancer, it is understandable that melanoma patients should lose this protection because of their abnormal immunological status (Lowenfels, 1973).

The histogenesis of this rare tumour can be explained. Melanoblasts arise from the neural crest and migrate to all parts of the body during fetal life. Though normally confined to the skin, buccal mucosa, leptomeninges and choroid of the eye in adults,

melanocytes may occur in the oesophagus, vagina and gallbladder (Breathnach, 1969). The gallbladder may therefore retain the melanoblastic potential of other endodermal organs.

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