



## Orbital Metastasis of Hepatocellular Carcinoma: A Case Report

*Métastases orbitale du carcinome hépatocellulaire: étude de cas*

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### ABSTRACT

**BACKGROUND:** Hepatocellular carcinoma is one of the commonest malignancies in Nigeria, however metastasis to the orbit is a rare presentation.

**OBJECTIVE:** To present a rare case of orbital metastasis of hepatocellular carcinoma.

**CASE REPORT:** A 25-year-old man presented with a 3-month history of pain, progressive swelling and burred vision of the right eye. Examination revealed marked proptosis of the right eye with reduced visual acuity and conjunctival chemosis. The liver was enlarged, hard and nodular. Hepatocellular carcinoma and orbital metastasis were histologically confirmed.

**CONCLUSION:** Metastatic hepatocellular carcinoma should be considered in the differential diagnosis of patients presenting with orbital tumours. *WAJM* 2011; 30(4): 305–307.

**Keyword:** Hepatocellular carcinoma, orbital metastasis, case report

### RÉSUMÉ

**CONTEXTE:** Le carcinome hépatocellulaire est une des tumeurs malignes les plus fréquentes au Nigeria, mais les métastases de l'orbite est une présentation rares.

**OBJECTIF:** Présenter un cas rare de métastase orbitaire d'un carcinome hépatocellulaire.

**RAPPORT DE CAS:** Un homme de 25 ans s'est présenté avec une histoire de 3 mois de douleur, le gonflement progressif et la vision ébarbés de l'oeil droit. L'examen a révélé exophtalmie marquée de l'œil droit avec une acuité visuelle réduite et chémosis conjonctival. Le foie a été élargie, dur et bosselé. Le carcinome hépatocellulaire et les métastases orbitaires ont été histologiquement confirmé.

**Conclusion:** carcinome hépatocellulaire métastatique devraient être considérés dans le diagnostic différentiel des patients présentant des tumeurs orbitaires. *WAJM* 2011; 30(4): 305–307.

**Mot-clé:** carcinome hépatocellulaire, le rapport orbitale cas de métastases,

## INTRODUCTION

Tumour metastasis to the eye is relatively infrequent occurring in 4-12% of all patients with cancer.<sup>1</sup> In a review of 227 cases of carcinomas metastatic to the eye or orbit, Ferry and Font reported that only 28 (12%) were orbital metastases.<sup>2</sup> No case of hepatocellular carcinoma (HCC) was reported in that review, with lung and breast metastases to the orbit accounting for majority of the cases. We present the case of a patient with orbital metastasis of hepatocellular carcinoma.

## CASE REPORT

A 25-year-old man presented in April 2009 with a 3-month history of pain, progressive swelling and blurred vision in the right eye. A month earlier, he had noticed an upper abdominal swelling but did not seek medical attention. He denied previous history of jaundice but he had had traditional scarification in childhood. On examination, he had marked proptosis of the right eye with reduced visual acuity, swollen lids and conjunctival chemosis (Figure 1). The liver was enlarged to 8 cm below the costal margin with a span of 18 cm, it was hard and nodular and there was moderate ascites. There were firm nodular cutaneous swellings over the right rib cage, which were thought to be metastatic deposits (Figure 2).

Needle biopsy of the liver confirmed the diagnosis of HCC. Fine needle aspiration cytology (FNAC) of the orbital mass and cutaneous nodules was interpreted as metastatic hepatocellular carcinoma.

X-ray of the orbit showed soft tissue swelling but no bone lesion. Other laboratory results are as shown in Table 1.

The patient could only be given palliative treatment with analgesics, topical antibiotics and dressings to protect the exposed cornea. He continued to have progressive visual loss but no significant pain, and died five weeks after presentation.

## DISCUSSION

Hepatocellular carcinoma is one of the commonest malignancies in Nigeria as in the rest of Sub-Saharan Africa.<sup>3</sup> Hepatitis B virus (HBV) is the major

**Table: Results of Laboratory Tests**

Test	Result
Liver biopsy	Hepatocellular carcinoma (HCC)
Fine needle aspiration cytology orbital mass	Metastases of HCC
Serum alpha-fetoprotein	
Protein	Markedly elevated
Haemoglobin	10.5g/dl
HBsAg	Positive
Anti-HBc Antibodies	Negative
Serum total bilirubin	85 µmol/L
Alkaline phosphatase	256 iu/L
ALT	62 iu/L
AST	57 iu/L
Serum albumin	28 g/l

aetiological factor with over 70% of HCC patients in this region having evidence of HBV infection.<sup>4</sup>

The typical presentation of HCC is that of right upper abdominal quadrant pain and palpable abdominal mass. Although metastasis of HCC to the lungs, lymph nodes, skin and the bone are common, orbital metastasis is rare. In a review of 227 cases of metastasis to the eye, not a single case was attributed to HCC.<sup>2</sup> This could be as a result of the relatively low incidence of HCC compared to breast, lung, prostate and colorectal cancers in western countries. A recent review of 18 cases of orbital metastasis from Japan, a country with relatively high incidence of HCC has shown that HCC is the third most frequent cause after lung and breast cancer.<sup>5</sup> However, in spite of the high incidence of HCC in Africa we did not come across any reports of orbital metastasis of HCC from Africa in our literature search.

Consistent with our findings in this case, proptosis, visual disturbance and pain are the most frequent findings in patients with orbital metastasis.<sup>5</sup> Again as in this case, the lesion is consistently unilateral as in all the reported case series. Prognosis for patients presenting with orbital metastasis from HCC is very poor. The condition is usually associated with advanced disease and early mortality. Average survival in such patients has been reported as about months.<sup>5</sup>

Treatment is of limited efficacy. Focal radiotherapy to the orbit appears to be the best mode of therapy. Systemic chemotherapy with gemcitabine,



**Fig. 1: Right eye of patient at presentation. There was marked proptosis, with swollen lid and conjunctival chemosis.**



**Fig. 2: Right rib cage showing firm nodular cutaneous swelling.**

megestrol acetate and tamoxifen has also been tried and may provide palliative benefit to some patients.

Metastatic hepatocellular carcinoma should be considered in the differential diagnosis of patients presenting with orbital tumours.

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