Epidemiology, Clinical Presentation and Management of Advanced Liver Cancer in Nigeria

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INTRODUCTION

- TWO BROAD TYPES OF LIVER CANCER:
  - PRIMARY
  - SECONDARY.

PRIMARY LIVER CELL CARCINOMA: mainly hepatocellular carcinoma.

- HEPATOCELLULAR:-Most prevalent liver Cancer in Nigeria.
  - Recent review from Ibadan Cancer Registry: HCC -92%
  - Metastatic carcinoma -1.78%
  - Cholangiocarcinoma-1.2%
  - Combined HCC and cholangiocarcinoma-0.24%.
HEPATOCELLULAR CARCINOMA

- 5th most common and 3rd cause of cancer death.
- Constitutes 1% of all cancers in the West.
- 620,000 cases/yr (USA-19,162; UK-2,800).
- Causes 595,000 deaths/yr
- Incidence: Increasing worldwide-Europe/NA
  - In African population. >50/100,1000
  - NA/Eur-1-2/100,000. Waterhouse et al. (1982).
- Mortality: 5% of all cancer deaths worldwide (IARC/WHO 1997).
- Prognosis: Poor.
  - Incidence/Mortality.
  - Most die within 1 yr of diagnosis
Mortality in Nigeria:
• 6 mo from diagnosis to death
• 3 wks from admission to death. Olubuyide, Natural Hx of HCC, 1992, Okuda et al. 1985
• 14 wks. from onset of illness. Ndububa et al, 1999

• Quality of life: 70% poor. Otegbayo et al. 2005, QOL HCC patients in Ibadan.
AETIOLOGY

-Liver cirrhosis
-Hepatitis B
-Hepatitis C
-Aflatoxins
-Others

Emerging risk factors:

-Diabetes Mellitus
-Obesity
-NASH
-Male sex
CLINICAL FEATURES

• Weight loss- often marked
• Abdominal Swelling
• Hard, nodular and tender hepatomegaly
• Abdominal pain- RUQ
• Jaundice
• Others: anorexia, early satiety etc.
• *Triad of abdominal pain, swelling and jaundice
## Presenting clinical features in HCC patients- Ibadan

<table>
<thead>
<tr>
<th>Clinical Feature</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight loss</td>
<td>50</td>
<td>94.3</td>
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<tr>
<td>Abdominal swelling</td>
<td>48</td>
<td>90.6</td>
</tr>
<tr>
<td>Hard/nodular hepatomegaly</td>
<td>48</td>
<td>90.6</td>
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<tr>
<td>Abdominal pain</td>
<td>47</td>
<td>88.7</td>
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<tr>
<td>Ascites</td>
<td>37</td>
<td>69.8</td>
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<tr>
<td>Jaundice</td>
<td>30</td>
<td>56.6</td>
</tr>
<tr>
<td>Anorexia</td>
<td>30</td>
<td>56.6</td>
</tr>
<tr>
<td>Pedal edema</td>
<td>25</td>
<td>47.2</td>
</tr>
<tr>
<td>Dilated abdominal veins</td>
<td>13</td>
<td>24.5</td>
</tr>
<tr>
<td>Prior diagnosis of cirrhosis</td>
<td>5</td>
<td>9.4</td>
</tr>
</tbody>
</table>

Others.

Otegbayo et al. 2006
INVESTIGATIONS

- Liver biopsy/FNAC
- Abd USS
- CT scan/MRI
- Tumour markers-Alphafetoprotein, DGCP, SCCA etc.
- Biochemical liver tests
- PT/PTTK
- Viral markers-HBV, HCV etc
- CXR
- FBC
- Ascitic fluid analysis
- Angiography

- Others – Glypican-3, CD34, anti-p53, liver specific microbubbles etc
Chest X-Ray Findings

• Metastatic deposits-11 (20.8%)

• Perihilar lymphadenopathy

• Consolidation-2(3.8%)

• Elevated right diaphragm-18(34%)

• Pleural effusion-4(7.5%)

• Right-sided basal pneumonitis -1
• Multiple cavitative lesions in the lung fields-1.
• Normal-7 (32.1%).
Abdominal Ultrasound
• Probe tenderness in the RUQ-22 (41.5%)
• Hepatomegaly -49 (92.5%)
• Hepatic nodules (intrahepatic met)- 33(62.3%)
• Splenomegaly -10(18.9%)
• Splenic Irregular outline, no definite mass was-4 (7.5%)
• Para-aortic lymphadenopathy- 8(15.1%)
• Portal hepatic lymphadenopathy -2(3.8%).
• Pleural effusion 7 (13.2%).

MIMICKERS

• Secondaries
• Hepatic Amoebiasis
• Macronodular Cirrhosis
• Hepar lobatum
• Polycystic liver disease
• Peliosis hepatis
• FNH
TREATMENT

Goals:
-Cure
-Palliation: drugs, irradiation etc
-Supportive: pain control**
  diet
  emotional support
  spiritual support
  improve quality of life
  control of infections
  ascitic fluid control
AVAILABLE TREATMENT MODALITIES
-Surgical resection, Transplantation
-Systemic chemotherapy- 5-FU, C-Platin, sorafenib, lapatinib etc
-Cryoablation
-Radiofrequency ablation
-Percutaneous Ethanol Injection
-Transcutaneous Arterial Embolisation
-Hepatic artery infusion chemotherapy
--Hormonal therapy
-Immunotherapy
-Multimodal therapy
-Experimental.
TREATMENT OPTIONS IN NIGERIA

+Limited
+Mainly symptomatic:
  • Pain control: most important intervention
  • Dietary support
  • Emotional support
  • Spiritual support
  • Control of infections
  • Ascitic fluid control
  • Treatment of encephalopathy
  • Drug trial
PREVENTION

• HBV/HCV control by:
  - immunisation: who?
  - Health education about transmission/prevention
  - Antenatal screening
  - Follow-up of carriers
  - Treatment of chronic hepatitis
  - Screening of blood/products - NBTS
  - Control of HIV infection
PECULIARITIES OF NIGERIAN HCC

- High prevalence of HBV 2-20% in Nigeria; Nasidi et al. (1986), Fakunle et al. (1981).
- HIV vs HBV
- Immunisation profile
- Late presentation
- Histological type
- Multinodular
- Aggressive course of tumour.
- Ignorance (patient/healthcare provider)
- Poverty/Cost of care.
- Lack of diagnostic tools
- Political will
PEOPLE AT RISK OF HBV INFECTION

- Infants of positive mothers
- Exposure to blood and blood products
- Healthcare workers
- Persons with multiple sexual partners
- Multiply-exposed haemophiliacs
- Haemodialysis patients
- IVDU
- Transplant recipients
- Individuals in closed institutions - daycare etc
- Sharp injuries - bite, toothbrush, ear piercing, tattooing etc
WAY FORWARD
Generate data base- Cancer registries

- Raise/Sustain awareness- World Hepatitis Day- Oct. 1
- Task force on Hepatitis- resuscitate
- National Vaccine Production lab,
- NPI - Taiwan/Gambian experience
- At risk group vaccination.
- Monitor carriers/Cirrhotics/Chronic hepatitics.
- Treat index cases
- Test and Treat HBV infection
- Encourage Medical check-up.
- New biomarkers- proteomics, genomics
- Molecular imaging.
- Hepatobiliary oncology. - Collaborative studies