CAPGAN2015

14th Scientific Meeting of Commonwealth Association of Paediatric, Gastroenterology and Nutrition

2-4 October 2015 : New Delhi, India

ABSTRACT FORM

Abstract Category: Oral ■ Poster ☐

1. GASTROENTEROLOGY

2. HEPATOLOGY

3. NUTRITION

Abstract Title: **Management of Hepatocellular Carcinoma in Children in Liver Transplantation set-up in India**

Presenting/Corresponding Author's Name: **VIBHOR** (First name) **BORKAR** (Last name)

Department: Department of Hepatology. **Institute Name** Global Hospital, Mumbai and Chennai

City Mumbai… **State:** Maharashtra.. **Country:** India…**Email Id**: vibhor.borkar@gmail.com

Co-Author(s):

S.No.	Full Name	Institute Name
1	Naresh Shanmugam[2],	Paediatric Hepatology, Gastroenterology and Nutrition[2], Global Hospitals and Health City, Chennai, India
2	Chaya Kelgiri[2],	Paediatric Hepatology, Gastroenterology and Nutrition[2], Global Hospitals and Health

		City, Chennai, India
3	Vishal Sachade[1],	Department of Hepatology[1], Global Hospital Mumbai
4	Mukul Vij[3],	Department of Pathology[3], Gastroenterology and Nutrition[2], Global Hospitals and Health
5	Mohamed Rela[4]	Department of Liver Transplantation and Hepatobiliary Surgery[4], Global Hospitals and Health City, Chennai, India
6		
7		
8		

Body of Abstract - (Aim/ Methods/ Results/ Conclusions):

Introduction/ Aim:
Hepatocellular carcinoma (HCC) is a rare tumour in children with incidence of 0.5-1 cases per 1 million per year. We studied the outcome of children with HCC undergoing the orthotropic liver transplantation (OLT) in our centre.

Methodology:
All children (age 0 - 18 years) undergoing OLT from 2010 to April 2014 at Pediatric Hepatology, Global Hospital, Chennai, India were reviewed. Standard evaluation was done to investigate the underlying etiology for cirrhosis and HCC. The record of study group was evacuated to study the stage of tumour at presentation, manner of diagnosis, treatment offered and outcome. Children with HCC who presented to out-patient clinic and did not undergo OLT were also evaluated.

Results:
During the study period 137 children underwent liver transplantation and 26 underwent liver resection at our hospital. HCC was seen in 10 children. Of these 8 underwent OLT. None of the 26 children who had hepatic resection had HCC. Median age of diagnosis of HCC was 60 (range 21 to 168) months. Aetiology of liver disease is as mentioned in the table 1. Of these 10 children with HCC, 8 underwent OLT. HCC was detected by CECT abdomen in all children except two. Three children with HT-1 had multifocal HCC. Immunohistochemistry from the explanted liver confirmed presence of HCC. On histopathological studies, HCC was moderately differentiated in 5 and well-differentiated in 3.
Two patients with congenital hepatic fibrosis and cryptogenic cirrhosis had fibro-lamellar variant of HCC. Among those who underwent OLT, seven children survived without recurrence at median follow-up of 12 months (3- 23 months). Two children, one with portal vein thrombosis and other with lung metastasis were not offered OLT. None of the child in our study had hepatitis B infection.

Conclusion:
Multifocal HCC was seen in children with Hereditary Tyrosinaemia. HCC at early stages in children can be cured with liver transplantation. Liver transplantation offered 70 % survival at 12 months in children with HCC. Constant surveillance for HCC is required in children with cirrhosis.

Table 1: Children with hepatocellular carcinoma and their outcome

S no	Age/Gender	Diagnosis	Tumor number	Largest Size of HCC nodule	AFP level (mcg/L)	Treatment	Follow up
1	11.5yr/Boy	Tyrosinemia type 1	2	25 mm	-	TABC LDLT	23 month
2	5 yr boy	Tyrosinemia type 1	1	25mm	28000	TABC LDLT	22 months
3	5 years/ girl	Tyrosinemia type 1	2	20 mm	NA	LDLT	12 months
4	1yr 9months/ Boy	PFIC-2	1	25mm	2500	LDLT	12 months
5	9years/ boy	Congenital hepatic fibrosis with ARPKD	1	60 mm	1.6	LDLT	18 months
6	3 years/ girl	Biliary atresia	1	40 mm	-	DDLT	Died due to primary graft dysfunction
7	9.5 years,/girl	PFIC 3	5	20 mm	-	DDLT	3 months
8	4 years/ boy	Tyrosinemia	1	25 mm	-	No treatment	Portal vein thrombosis
9	2 years/ boy	PFIC 2	1	30 mm	-	LDLT	4 months
10	14 years/ girl	Cryptogenic cirrhosis	1	100 mm	-	No treatment	Lung metastasis

AFP- alpha-feto protein, TACE- Transarterial chemo embolization, LDLT- liver donar liver transplant, DDLT- death donar liver transplant, PFIC- Progressive familial intrahepatic cholestasis