

Gender: Female

Age: 14

MRN: 766532

Diagnosis: Hepatocellular Carcinoma

History and Physical:

Doctor:

Hello, Umme Hani. How are you feeling today?

Patient:

Im okay, Doctor, but I still have some concerns.

Doctor:

I see. Lets go over your medical history and the findings from your previous visits. You had your first visit to the pediatric gastroenterology clinic on April 18, 2024, for complaints related to a history of upper gastrointestinal bleeding (UGIB). Is that right?

Patient:

Yes, Doctor. I had a major bleeding episode in December. I was in USOH, and I suddenly vomited blood. The next day, I had another episode, and I also passed black stools for three days.

Doctor:

I understand. You were admitted to Faisalabad Civil Hospital, where they performed an endoscopy and transfused two units of packed cells. You didnt need fresh frozen plasma. After that, you were transferred to Nishtar Hospital, where the ultrasound showed an unspecified liver disease. Is that correct?

Patient:

Yes, thats correct.

Doctor:

Lets review your examination findings. Your weight is 31 kg, and your height is 157 cm, which places you below the 3rd centile for weight and at the 25th centile for height. Theres no jaundice, pallor, or edema. I also noted that your spleen was palpable by 3 cm but your liver wasnt palpable.

Patient:

I remember that. Its been hard for me to maintain a healthy weight.

Doctor:

Your liver function tests show that your bilirubin was slightly elevated at 1.6 mg/dL, and your liver enzymes (ALT, AST, ALP, GGT) were abnormal, with ALT at 93 and ALP at 990. Your albumin was low at 2.7 g/dL, and your INR was 1.9, which is a bit concerning for liver dysfunction.

Patient:

That sounds like its pretty serious.

Doctor:

Yes, Umme Hani. Your liver condition is indeed concerning. You underwent a liver biopsy on January 31, 2024, which showed mild interface hepatitis and portal tract fibrosis, without cirrhotic nodules. The fibrosis was graded at stage 1, but moderate portal inflammation was present. The ultrasound on April 13, 2024, revealed coarse cirrhotic liver with a focal lesion in the left lobe, which could be a hepatocellular carcinoma (HCC). Additionally, the CT scan on January 2, 2024, confirmed cirrhosis but didnt show any arterialized lesions to suggest HCC at that time.

Patient:

Im really worried about the HCC diagnosis. What does that mean for me?

Doctor:

Your condition has been closely monitored. The recent investigations, including a liver lesion biopsy on April 24, 2024, confirmed the presence of well-differentiated hepatocellular carcinoma (HCC) in the background of cirrhotic liver. This means that there is a liver cancer that has developed due to your chronic liver disease. However, there are no signs of vascular invasion, which is somewhat reassuring.

Patient:

That sounds serious. Whats the next step for me?

Doctor:

We will need to start treatment for your condition. Weve prescribed Ceclor 500 mg twice a day for 5 days and Azithromycin 250 mg once a day for 3 days to manage any infections. For now, we will continue with regular monitoring. Your follow-up appointment is scheduled for May 27, 2024, and we will also plan for an EGD and HRCT to further assess your condition. Well check your CBC, CRP, LFTs, RFTs, and PT/INR on your next visit.

Patient:

Okay, Doctor. Im worried about the next steps, but I will follow the plan.

Doctor:

I understand your concerns, Umme Hani. It's important to stay positive and follow the treatment plan closely. We will continue to monitor your condition and provide the necessary care. Well see you again soon. Do you have any questions for me?

Patient:

Not at the moment, Doctor. Ill see you at the next visit. Thank you.

Doctor:

Youre welcome. Take care of yourself, Umme Hani.

Patient: Hello, doctor. Im here for my follow-up visit.

Doctor: Hi, how have you been feeling since our last visit? Lets start with a review of your recent tests and reports.

Patient: Im still having some issues with my liver, as you know. Im a bit concerned.

Doctor: Lets go through everything. From the lab results on 30.03.2024, your IgG level is 7.7. Your ceruloplasmin is at 29, and your 24-hour urinary copper is 10.55. We also have your iron levels at 40, TIBC at 338, and ferritin at 102 from 13.01.2024. You were also tested for hepatitis B and C, and both HBsAg and Anti-HCV are negative.

Patient: Ive heard the term PELD/MELD before. What is that about?

Doctor: Your PELD/MELD score is 16 points. This is a scoring system used to assess the severity of liver disease and help prioritize patients for a liver transplant.

Patient: What about the MDT outcome?

Doctor: On 06.05.2024, the multidisciplinary team reviewed your case. Radiologically and pathologically, it appears there's a solitary HCC in segment II of your liver. There's no vascular invasion or extrahepatic disease at this time. Your liver disease doesn't have a clear etiology, but it's fibrotic on histology. Given your presentation, we're considering locoregional treatment for now, with follow-up afterward.

Patient: So, I do have cancer, right?

Doctor: Yes, you have a well-differentiated hepatocellular carcinoma (HCC). The liver lesion biopsy done on 24.04.2024 confirmed this. It shows atypical hepatocytes with prominent nucleoli and thickened hepatic plates. There's also steatosis and lobular inflammation, but there's no lymphovascular invasion.

Patient: That sounds serious. What other biopsy results did we have?

Doctor: We also did a liver parenchymal biopsy, and it showed chronic hepatitis and cirrhosis. There was marked portal inflammation and ductular proliferation, along with moderate lobular inflammation and spotty necrosis. Macrovesicular steatosis was observed, and no cholestasis was present. The Metavir score for activity is A3/A3, and for fibrosis, it's F3-4/F4.

Patient: I see. How does the liver look overall?

Doctor: From the ultrasound shearwave done on 19.04.2024, it shows an F4 stage of hepatic fibrosis, which indicates severe scarring of the liver. Your AFP is 30.98, which is another important marker we monitor for liver cancer.

Patient: What about the endoscopy I had?

Doctor: Your endoscopy results from 24.04.2024 show two columns of grade 3 esophageal varices with red signs, which we treated by applying two bands. Additionally, there was mild gastropathy and gastritis, with biopsies taken from your gastric antrum. The duodenum showed decreased mucosal folds and duodenal ulcers in D1, and biopsies were also taken there. We reviewed these findings during your follow-up on 30.07.2024.

Patient: Were there any changes after that?

Doctor: Yes, on 30.07.2024, during the follow-up endoscopy, the esophageal varices were reduced to one column of grade 1, with no red signs. The gastric findings remained similar with mild gastritis. Your duodenal ulcers in D1 were still present, but no new complications were found.

Patient: What about the CT scan and HRCT results?

Doctor: The CT scan triphasic done on 19.04.2024 confirmed macronodular cirrhosis and a left hepatic lobe HCC. The HRCT chest from 04.06.2024 showed clearance of the ground-glass infiltrates we previously saw, suggesting the resolution of an infection. Importantly, there were no metastatic deposits in the chest.

Patient: Thats some good news, I guess. Whats the plan now, doctor?

Doctor: The plan is to proceed with a liver transplant. Your family has decided to move forward with a living donor liver transplant (LDLT), although a donor with the same blood group isnt available yet. We will consult with anesthesia tomorrow morning for preparation.

Patient: What medications should I be taking?

Doctor: Continue with the medications: Inderal (Propanolol) 10 mg twice a day, Aldactone (Spironolactone) 25 mg three times a day. We're decreasing the Spironolactone dose to twice a day. I've also prescribed ORA ADE drops (5 drops once daily) and Vitamin D 2 lac units once daily for 1 month (for a total of 3 doses).

Patient: How often will I need follow-up?

Doctor: We'll have another follow-up in one month. During that visit, we'll repeat your lab tests, including CBC, LFTs, RFTs, S/E, PT/INR, and urine C/E. We'll also plan for another endoscopy.

Patient: Thank you, doctor. I feel a bit reassured now.

Doctor: You're welcome. We're closely monitoring your condition, and we'll continue to adjust the treatment as needed. Take care, and we'll see you soon for your follow-up.

Patient:

Doctor, I've been feeling a bit weak lately, and my appetite has decreased. A few days ago, I had some vomiting and loose stools, but I took some medicine from a nearby doctor, and now I'm feeling

better.

Doctor:

I see, let's go over your recent health status. Last time we discussed your liver condition. You have been diagnosed with well-differentiated hepatocellular carcinoma (HCC) on a background of cirrhotic liver. Let me check your latest examination results.

Doctor:

You weigh 32 kg, which is below the 3rd centile for your age, and your height is 155 cm, at the 25th centile. There's no jaundice, pallor, or edema. On your cardiovascular exam, your heart sounds are normal, and your CNS is intact. Your respiratory exam is clear. The spleen is palpable by 1 cm, but your liver is not palpable, and there is no evidence of ascites.

Patient:

I've been following the treatment plan. What does the doctor think about my condition now?

Doctor:

We continue to monitor your liver condition closely. You've had various tests, including a liver biopsy, endoscopy, and imaging. Your liver biopsy shows chronic hepatitis and cirrhosis with significant portal inflammation, moderate lobular inflammation, and steatosis. The AFP (Alpha-Fetoprotein) is elevated, which is a marker for liver cancer. Your CT scan also indicates cirrhosis and a hepatocellular carcinoma in the left hepatic lobe.

Patient:

So, what's the next step in my treatment?

Doctor:



Given your diagnosis, the definitive treatment is a liver transplant (LDLT). However, we are still facing the challenge of finding a compatible donor with the same blood type. Your family has decided to proceed with the liver transplant once a suitable donor is found. In the meantime, we'll continue your medications and monitor your liver function.

Patient:

What medications do I need to keep taking?

Doctor:

You are prescribed the following:

Propranolol (Inderal) 10 mg twice daily

Spironolactone 25 mg twice daily

ORA ADE drops (5 drops once daily)

Vitamin D (2 lac units, once daily, for a month)

Omeprazole 20 mg once daily

Ensure formula milk for nutritional support

Surbex Z (1 tablet once daily)

Vitamin K 2 mg twice weekly

Doctor:

Your liver condition requires close monitoring, so we will repeat all your labs and AFP levels at your next follow-up. We will also conduct an ultrasound of your abdomen. You should also maintain a healthy diet and continue with the supplements as advised.

Patient:

What about my recent test results?

Doctor:

Your liver workup shows no autoimmune causes for your liver disease. All autoimmune markers are negative, including anti-LKM-1, ANA, AMA, and ASMA. Your copper and ferritin levels are within range, and your liver enzymes are being monitored closely. Your PELD/MELD score is 16, indicating the severity of your liver condition.

Your CT scan shows macronodular cirrhosis, and the HRCT chest indicates clearance of previous lung infiltrates. There's no sign of metastasis.

Doctor:

Based on the multidisciplinary team meeting on 06.05.24, your liver disease is progressing, and we'll consider locoregional treatments for now, alongside follow-up care.

Patient:

And when should I come for my next visit?

Doctor:

You should follow up with us in about a month. In the meantime, we'll keep a close eye on your liver function and AFP levels. If a donor with the same blood group becomes available, we'll arrange for

the transplant. Weve also arranged for parent counseling to support your family during this process.

Patient:

Thank you, doctor. Ill follow all the instructions and stay in touch for the follow-up.

Doctor:

You're welcome. Keep in mind that we are here for any questions or concerns. Stay well, and well see you in a month for your next follow-up.