

Pediatrics Department  
Examination for MD Degree (Commentary)  
Course Title: pediatrics (paperIII)  
Date: 2/9/ 2020  
Time allowed: 1.5 hours



TANTA UNIVERSITY  
Faculty of Medicine

Total assessment: 200 Marks

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A 12-year-old black male child known to have an initial successful Kasi operation for biliary atresia has been presented to Pediatric Department with 1-year history of shortness of breath. His shortness of breath worsened with the time; it was exertional initially, but recently it was noticed even at rest. It was aggravated by walking and sitting, but relieved by lying flat and oxygen therapy. It limited his activities of daily living and self-care. In addition, it was reported that his shortness of breath was associated with generalized fatigue and was preceded by jaundice, skin itching and mild abdominal enlargement for about 4 years. Moreover, this shortness of breath was not associated with chest wheeze, chest pain, cough, sputum production, palpitation, or loss of consciousness. He also had intermittent generalized, moderately severe pressure like headache but no sensory or motor symptoms were reported. There was no history of leg swelling or gastrointestinal bleeding.

Kasi operation for biliary atresia was successful for several years, but it eventually failed approximately at the age of 7 years. The patient was known to receive the recommended medical treatment for cholestasis. On physical examination, he was conscious, afebrile, with mildly elevated respiratory effort. Weight was 29 Kg (below 5<sup>th</sup> percentile) and height was 136 cm (below 5<sup>th</sup> percentile). He had jaundice, digital clubbing (grade 3), muscle wasting, palmar erythema, scattered spider angiomas, xanthomas and scratching markings over his body, but no edema or asterixis. The cardiovascular, respiratory, and neurological examinations were normal. The abdominal examination showed enlarged firm liver with nodular surface and sharp irregular border, splenomegaly, but no ascites.

As regard the laboratory investigations in this case: CBC demonstrated a platelet count of  $80 \times 10^3$  per  $\mu\text{L}$ , normal hemoglobin level, normal red cell and white cell counts. Liver function tests revealed: total bilirubin (6.5 mg/dL), direct bilirubin (4.5 mg/dL), total protein (6.5 g/dL) including albumin (3 g/dL), globulin (3.5 g/dL), Gama-Glutamyl transferase (GGT, 150 U/L), alkaline phosphatase (ALP, 450 U/L), alanine transaminase level (ALT, 128 U/L) and aspartate transaminase level (AST, 148 U/L). His coagulation profile showed that prothrombin time was prolonged 3 seconds over the control and INR was 1.6. Total cholesterol was high. In addition, his renal functions, and electrolytes were almost within normal limits. Hepatitis profile revealed positive anti-HCV antibodies, and HCV viral load (genotype 4) by PCR was 1,510,860 IU/mL. His hepatitis B viral serology was negative. HAV IgG antibody was positive. His  $\alpha$ -fetoprotein level was normal. His Child-Pugh score was 7 points (Class B).

Chest X-ray showed bibasal nodular opacities. Colored-Doppler echocardiography was normal with no intra-cardiac defects and the possibility of pulmonary hypertension

Pediatrics Department  
Examination for MD Degree  
Course Title: pediatrics (paperII)  
Date: 26/8/ 2020  
Time allowed: 3hours  
All Questions should be tried



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Total assessment: 260 Marks

<u>Question Number:</u>	<u>Marks</u>
<u>Q1:</u> Pain in neonates (pathway, assessment and management)	(50)
<u>Q2:</u> Discuss in brief Tracheomalacia	(25)
<u>Q3:</u> Give short account on impact of social media on health and behavior in children	(25)
<u>Q4:</u> Give short notes on Ontogeny	(25)
<u>Q5:</u> Give an account on milestones of prenatal development	(25)
<u>Q6:</u> Discuss briefly simplified consensus definition of acute lung injury	(25)
<u>Q7:</u> Give short notes on phenotypes of primary antibody deficiency	(25)
<u>Q8:</u> <u>MCOs, (3 marks for each question):</u>	

1. Renal manifestations of hypokalemia include all the following EXCEPT:

- A. Polyuria
- B. urinary retention
- C. decrease ammonia production
- D. interstitial nephritis

2. A girl is affected with genetically transmitted disease. She has one brother and one sister. Both of them are not affected. Her father is affected with the disease but her mother is normal. Her father's one brother (uncle) and one sister (aunt) are normal. Her mother's siblings and parents are normal. Her paternal grandfather had the disease but paternal grandmother was normal. Her cousins i.e., uncle's (father's brother) siblings are normal. The disease is most likely transmitted:

- A. Autosomal dominant
- B. Autosomal recessive
- C. X-linked dominant
- D. X-linked recessive