

Curiositas (General Surgery)

UNDERGRADUATE QUIZ

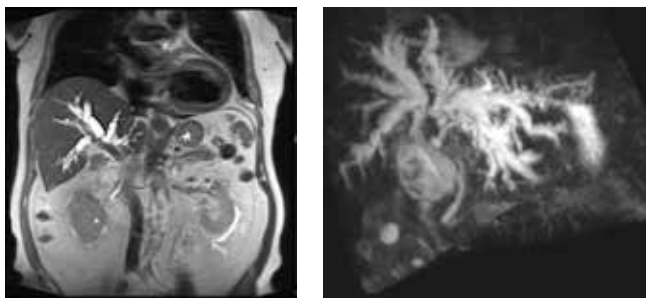
Jaundice is a yellow discolouration of the skin and soft tissues due to the presence of excessive amounts of circulating bilirubin. The causes of jaundice can be divided into pre-hepatic, hepatic and post-hepatic categories. It is important that patients presenting with jaundice undergo appropriate investigations to determine the underlying cause, since urgent treatment may be required.

1. Create a table outlining the causes of jaundice by category.
2. In a newborn with abdominal distension and jaundice lasting more than 2 weeks, what diagnosis must be ruled out?
 - a. Breastmilk jaundice
 - b. Physiological jaundice
 - c. Biliary atresia
 - d. Infection
 - e. Congenital hypothyroidism

Dr Ian Bickle, Consultant Radiologist, Chesterfield Royal Hospital, Derbyshire; Sandra Messiha and Melissa Tso (Medical Students, Queen's University Belfast).

POSTGRADUATE QUIZ

A 74-year-old male presents with a short-term history of anorexia, weight loss and jaundice. Blood results reveal the following: total bilirubin 166 $\mu\text{mol/L}$, GGT 1919 U/L, ALP 952 U/L, AST 120 U/L and ALT 134 U/L (all results are above the reference ranges).



A representative image from his magnetic resonance cholangiopancreatography (MRCP) study and a maximum intensity projection (MIP) are shown:

1. What are the most striking abnormalities?
2. What other investigations would you complete and why?

Dr Ian Bickle, Consultant Radiologist, Chesterfield Royal Hospital, Derbyshire; Sandra Messiha and Melissa Tso (Medical Students, Queen's University Belfast).

HISTORICAL QUIZ

The picture below represents one of the most dangerous infectious diseases to plague mankind. The first definitive outbreak of this disease occurred in 1647 on the island of Barbados. Symptoms of this condition include pyrexia, chills, nausea, muscle pain, abdominal pain and jaundice.



1. What condition does the image represent?
2. Where did it originate?
3. What is the method of transmission?

Sandra Messiha and Melissa Tso (Medical Students, Queen's University Belfast).

AND FINALLY...



Image credit: By Mdf - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=4106444>

What is this bird, and how is it linked to the cases above?

Sandra Messiha (Medical Student, Queen's University Belfast).

ANSWERS See overleaf

CONSIDER CONTRIBUTING TO CURIOSITAS?

Please refer to 'Curiositas: Guidelines for contributors' <http://www.ums.ac.uk/curiositas.html> and email umj@qub.ac.uk with your ideas and submissions.



Curiositas: Answers

UNDERGRADUATE QUIZ

1. Important causes of jaundice are listed in the table below:

<p>Pre-hepatic</p> <p>Haemolytic anaemia Gilbert's Syndrome Criggler-Najjar Syndrome</p>
<p>Hepatic</p> <p>Alcoholic liver disease Viral hepatitis Drug-induced Hereditary haemochromatosis Autoimmune hepatitis Primary sclerosing cholangitis Primary biliary cirrhosis</p>
<p>Post-hepatic</p> <p>Gallstones Cholangiocarcinoma Biliary strictures Drug-induced cholestasis Pancreatic cancer Abdominal masses</p>

2. All of the above causes are associated with prolonged jaundice however, in this scenario involving a newborn baby, biliary atresia is the most important diagnosis to rule out. Delayed diagnosis can lead to a poorer prognosis. The condition usually presents with prolonged jaundice, dark urine and pale stools. Examination may reveal abdominal distension and hepatomegaly. The procedure for curing biliary atresia is the Kasai procedure and there is a better prognosis if the surgery is performed before 8 weeks of age.

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POSTGRADUATE QUIZ

1. The coronal MR images demonstrate severe diffuse intrahepatic ductal dilatation down to the porta hepatis, with an abrupt cut off. The common hepatic and bile ducts are of normal calibre. The concern in this case is an underlying cholangiocarcinoma.
2. The next most helpful investigation would be an endoscopic retrograde cholangiopancreatography (ERCP). This would allow a biopsy of the mass to be taken, which would in turn facilitate histological confirmation. It would also be important to order further imaging tests to check for metastatic deposits. Urgent investigations are necessary since cholangiocarcinomas are classed as highly malignant tumours and have a 15% overall 5-year survival rate.

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HISTORICAL QUIZ

1. This image represents yellow fever. It depicts André Mazet tending to patients suffering from the disease in Barcelona.
2. Yellow fever most likely originated from East or Central Africa where it is thought that there was an initial transmission from non-human primates to humans. The viral disease then spread to South America through the slave trade during the 17th century.
3. The condition is transferred by the bite of an infected female mosquito and is mainly seen in Africa.

Sandra Messiha and Melissa Tso (Medical Students, Queen's University Belfast).

AND FINALLY...

This is a photograph of an adult male Baltimore oriole (*Icterus galbula*). Baltimore orioles are in a family of birds known as Icterids, whose name derives from the Greek word 'ikteros' meaning 'a yellow bird'. From 'ikteros' we get the term 'icterus', another term for jaundice. In some traditions it was believed that seeing a bird such as this would cure jaundice, but at the expense of the bird's death.

Sandra Messiha (Medical Student, Queen's University Belfast).

