

Jaundice cause and physiology

Introduction

Jaundice is a yellow staining of the skin and sclera because of the high bile pigment bilirubin in the blood, therefore, those yellowish color spread through the skins. The urine may turn dark or brown.

Usually, bilirubin is broken down when the hemoglobin of the red blood cells carries oxygen. However, when the excretion of bilirubin is hindered and passes into the blood, it means that the person may have liver or gallbladder disease.

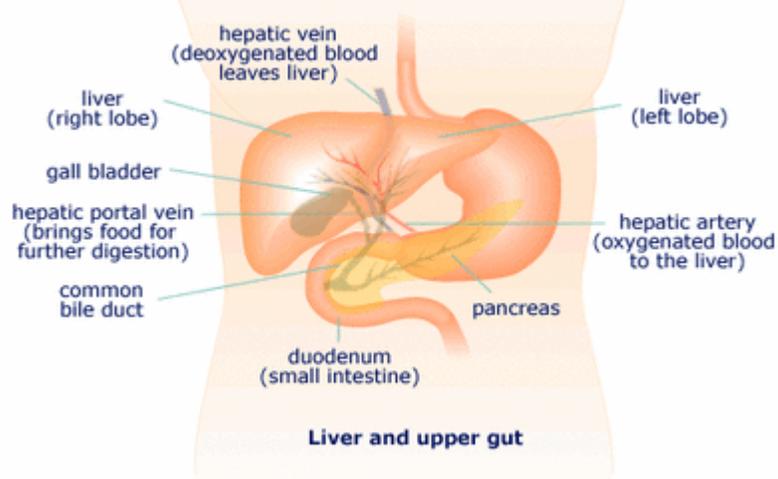


Discussion

Before understand what Jaundice is, it would be better if know what bilirubin is. Bilirubin is "unconjugated," "free" or "indirect" bilirubin. It is the yellow breakdown product of normal heme catabolism. Since it is unconjugated and not soluble in water, it will bind to albumin and sent to the liver. The bilirubin is excreted from the liver into the biliary and cystic ducts as part of bile.

Normally, the urine is light yellow color, but when liver's function is impaired or when biliary drainage is blocked, some of the conjugated bilirubin leaks out of hepatocyte and appears in the urine.

The causes can be divided into three categories: Pre-hepatic, hepatic, and post-hepatic.



Pre-hepatic: the pathology is occurring prior the liver

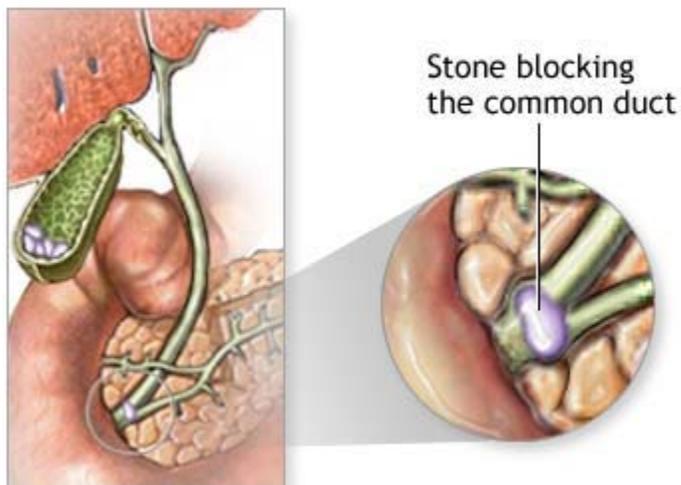
^ rate of hemolysis (break down of red blood cell). Too much bilirubin being produced for the liver to remove from the blood. Patients with hemolytic anemia have an abnormally rapid rate of destruction of their red blood cells that release large amounts of bilirubin into the blood.

Hepatic: The pathology is located within the liver

Cell necrosis reduces the liver ability to metabolize and excrete bilirubin leading to build up the blood.
Ex. Hepatitis, hepatotoxicity and alcoholic.

Post-Hepatic: The pathology is located after the conjugation of bilirubin in the liver

It was by an interruption to the drainage of bile in the biliary system. For example, bile ducts was blocked by cancer or gallstones. No bile (digesting fat and releasing vitamins) that can lead to deficiencies of certain vitamin. Ex. Deficiency Vitamin K that prevents proteins that are needed for normal clotting of blood.



ADAM.

There is one type of jaundice that is harmless; it is very often seen in infants. Bilirubin normally drops to a low level without any intervention required: the jaundice is presumably a consequence of metabolic and physiological adjustments after birth.

Conclusion

Jaundice is a common symptom as well as a sign in medical and surgical gastroenterology practice. The diagnosis of jaundice is suggested by the appearance of the patient's eyes and complexion. Disease in the biliary system can be identified by imaging techniques.

One of the reason that I choice this topic, it is because when I was young my parents thought that I have this diseases, because my skins were very yellowish. But it was something else affects the pigment cell of the skin, Vitamin A. Now I realized that pigment cells in the blood and the skin both affect the skins color significantly. I should have done this earlier, so I would know more before the exam.

Citation

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