ADVICE

bstructive jaundice: when the bile duct is b locked by a stone or a scar

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Yellowing of the skin and eyes, dark urine and pale stools can mean that bile is not draining into the intestine. We explain the benign causes of obstructive jaundice and how it is treated, drawing on ten years of experience of surgeons in Kyiv.

Bile is produced by the liver and reaches the intestine through the common bile duct. If an obstruction forms in the lower part of the duct, bile backs up, bilirubin builds up in the blood and the person turns yellow. This kind of jaundice is called obstructive (or mechanical), as opposed to the jaundice that develops with hepatitis.

The obstruction can be a tumour, but very often the cause is benign. Such cases are the subject of a study by surgeons at Kyiv City Clinical Hospital No. 1, whose authors include Artem Mykytiuk. They analysed the treatment of 719 patients over the period 2014–2024.

Symptoms that cannot wait

- yellowing of the whites of the eyes and the skin
- dark, “beer-coloured” urine
- pale, discoloured stools
- itchy skin
- pain under the ribs on the right
- fever with chills — a warning sign of cholangitis, an inflammation of the bile ducts.

Jaundice with a fever is a reason to seek urgent medical help the same day. Cholangitis can quickly progress to sepsis.

What blocks the duct

In the study, the causes were distributed as follows:

- stones in the bile duct (choledocholithiasis) — 49%, the most common cause
- scarring that narrows the duct — 17%
- chronic pancreatitis, when a hardened pancreas compresses the duct — 12%
- damage to the duct during previous operations — 8%
- Mirizzi syndrome — 7%: a large stone in the gallbladder presses on the duct from outside
- other causes — 7%.

In other words, almost half of all cases are a complication of gallstone disease. Stones from the gallbladder migrate into the duct and get stuck at its narrowest point.

Why it matters not to delay

Many patients reach the surgeons already in a serious condition. In the study, one in four (25%) had cholangitis, in 37% bilirubin exceeded 200 µmol/L (the normal level is up to 20), and one in five showed signs of impaired liver function. The longer bile stays backed up, the more the liver suffers and the higher the risk of surgery.

How it is treated

First, let the bile drain

With severe jaundice, cholangitis or a high surgical risk, treatment is divided into stages. First a drain is placed, for example through the skin under ultrasound guidance, and bile starts to flow out. Once the patient's condition has stabilised, the main operation is performed. Minimally invasive and hybrid techniques were used in 23% of patients in the study.

Restorative operations

In 71% of cases the surgeons were able to remove the cause and restore the natural flow of bile: for example, by removing stones from the duct together with the gallbladder.

Reconstructive operations

When the duct has been destroyed by scarring or injury, the bile is given a new route into the intestine: a connection is made between the duct and a loop of the small intestine (hepaticojejunostomy). Such operations were needed by 29% of patients, and roughly one in seven of them was performed after unsuccessful previous procedures on the bile ducts.

The authors stress that complex reconstructions and the treatment of bile duct injuries should be carried out in centres experienced in hepatobiliary surgery, and that the approach should be tailored to the specific cause, the severity of the patient's condition, their anatomy and any previous operations.

How to lower the risk

The most common cause of obstructive jaundice is stones, so the main prevention is timely treatment of gallstone disease. If an ultrasound has found stones in your gallbladder and attacks of pain under the ribs on the right keep coming back, discuss a planned operation with a surgeon. It is much easier to go through in a calm period than as an emergency with jaundice.

You can have an abdominal ultrasound and a consultation with a surgeon at Ekstramed. To book, call one of the numbers in the contacts section. If you have jaundice with a fever, call 103, the emergency ambulance number in Ukraine.

Sources

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This article is for information only and does not replace a consultation with a doctor. The treatment approach is decided by a doctor after an in-person examination and assessment.