



Effectiveness of spiral computed tomography in the diagnosis of the common bile duct diseases, complicated by obstructive jaundice

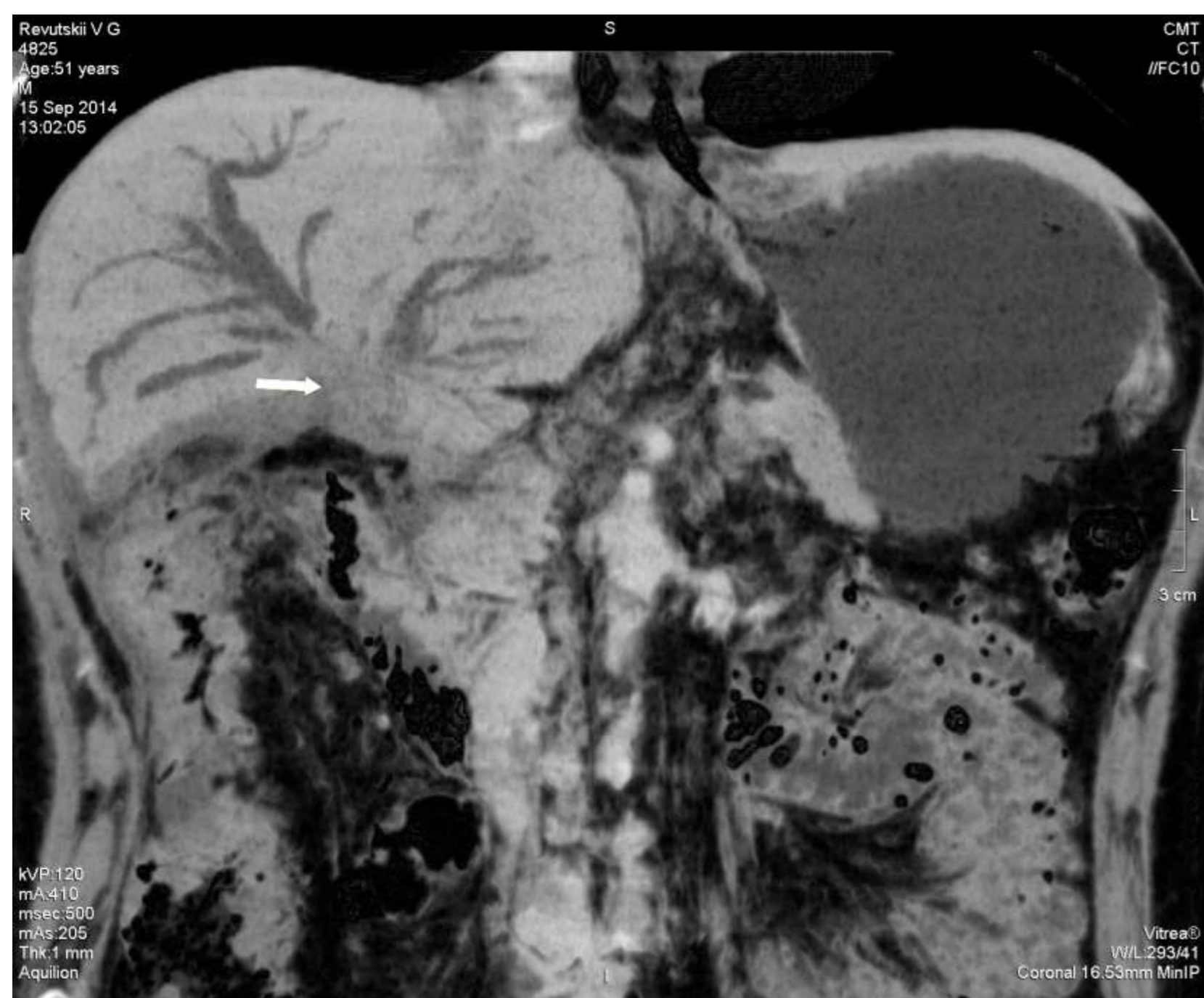
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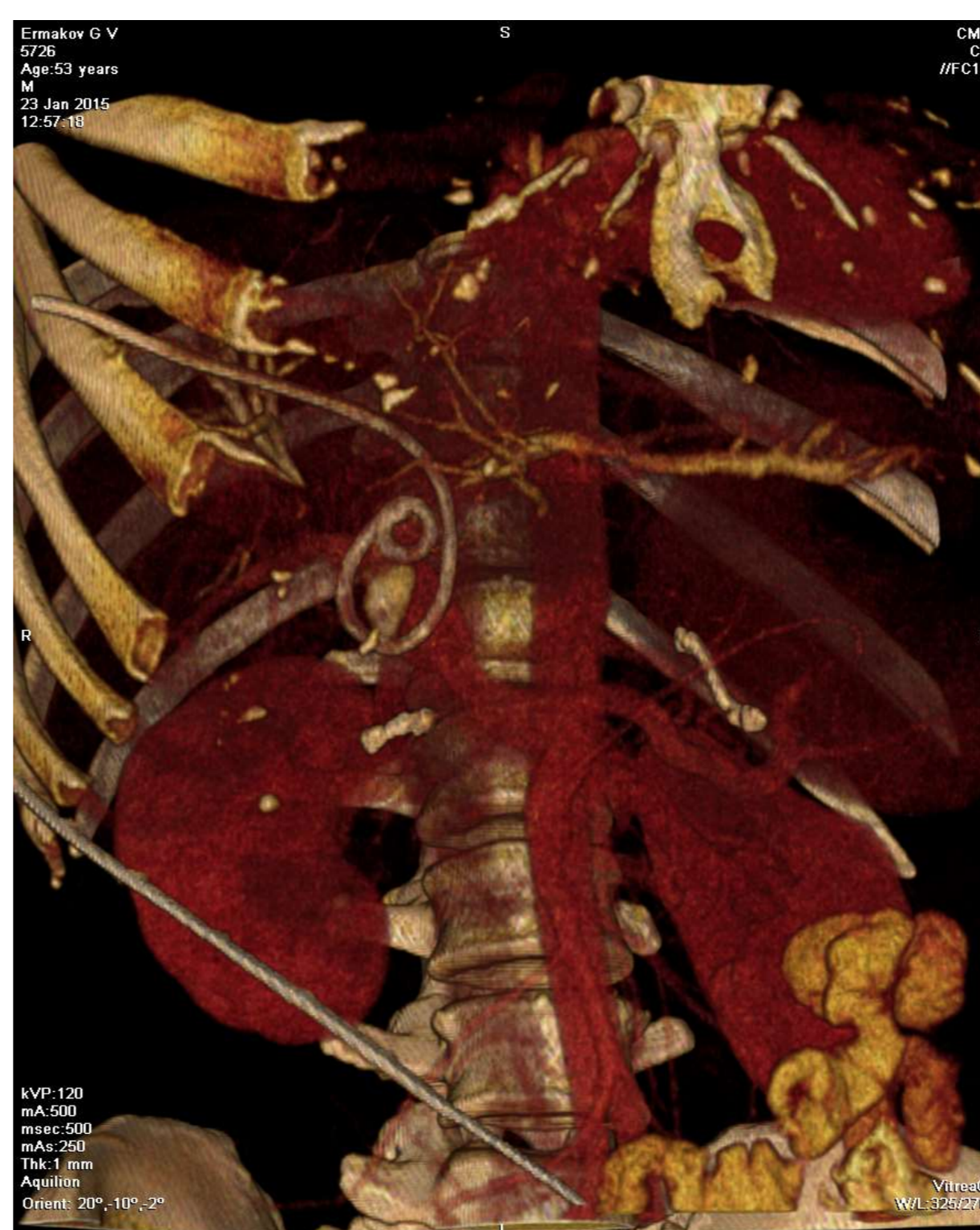
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Background: Spiral CT is an indispensable diagnostic method and determination method of surgical intervention in the common bile duct diseases, complicated by obstructive jaundice.

The purpose of the study is to evaluate the effectiveness of spiral CT in the diagnosis of the common bile duct diseases complicated by obstructive jaundice.



Spiral CT of patient with cholangiocarcinoma IV type after PTBD (with 3D reconstruction)



Methods. For the period 2011-2017, spiral CT was performed on 59 patients with choledocholithiasis, strictures of common bile duct, strictures of biliodigestive anastomosis and cholangiocarcinomas of different localization according to the Bismuth-Corlette classification.

Results. Analysis of diagnostic efficiency of spiral CT allowed us to determine the sensitivity, specificity and accuracy:

- for choledocholithiasis - 80%, 96.1% and 89.8%;
- for strictures of the common bile duct - 66.6%, 96.1% and 86.4%;
- for strictures of biliodigestive anastomosis - 75%, 94.2% and 88.1%;
- for cholangiocarcinomas - 93.8%, 80% and 91.5%.

The prevalence of cholangiocarcinomas was determined in 46 (77.9%) using spiral CT. There were 3 (6.1%) false-negative and 2 (4.1%) false-positive results. In 3 (6.1%) cases of cholangiocarcinomas of the distal part of common bile duct weren't diagnosed. In case of false-positive results, stones of the common bile duct were mistaken for the tumor. Patients with choledocholithiasis received 2 (3.4%) false-positives and 1 (1.7%) false-negative results. In 2 (3.4%) cases found misdiagnosed strictures. False-positive results, in contrast, in 2 cases (3.4%) are due to undiagnosed cholangiocarcinomas. In biliary hypertension resulting from scarring and inflammatory strictures of the common bile duct, 2 (3.4%) false-positives and 1 (1.7%) false-negative results were noted. 3 (5.1%) false-positives and 1 (1.7%) false-negative results were observed in the strictures of biliodigestive anastomosis.

Conclusions. Spiral CT is the method of choice for the diagnosis of cholangiocarcinomas, which revealed the nature and level of the biliary block, the prevalence of the tumor process in 91.5% of patients. Spiral CT is an additional method of diagnosis in case of suspected false-negative or false-positive result of ultrasound examination for benign diseases of the common bile duct diseases, complicated by obstructive jaundice