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Cholangio Carcinoma Single-Molecule Diagnostic Tools and Biochemical Markers

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DESCRIPTION

Cholangiocarcinoma, also referred to as bile duct cancer, is a type of cancer that develops in the bile ducts. Abdominal pain, yellowish skin, weight loss, generalised itching, and fever are all symptoms of Cholangiocarcinoma. It is also possible to have light-coloured stool or dark urine. Gallbladder cancer and cancer of the ampulla of Vater are two other biliary tract cancers. Primary sclerosing cholangitis (an inflammatory disease of the bile ducts), crohn's disease, cirrhosis, hepatitis C, hepatitis B, infection with certain liver flukes, and some congenital liver malformations are all risk factors for Cholangiocarcinoma. However, the majority of people have no discernible risk factors. A combination of blood work, medical imaging, endoscopy, and, in some cases, surgical exploration is used to make the diagnosis. The disease is confirmed by examining tumour cells under a microscope. A combination of blood tests, medical imaging, endoscopy, and, in some cases, surgical exploration is used to make the diagnosis. A microscope examination of cells from the tumour confirms the disease. Cholangiocarcinoma is typically an adenocarcinoma (a cancer that forms glands or secretes mucin) at diagnosis, which is why early detection is ideal. Palliative treatments in these cases may include surgical resection, chemotherapy, radiation therapy, and stenting procedures. Surgery can completely remove the tumour in about 1/3rd of cases involving the common bile duct and less commonly in other locations, offering a chance of cure. Chemotherapy and radiation therapy are generally recommended even when surgical removal is successful. In some cases, surgery may include a liver transplant, transplantation. Even when surgery is successful, the average 5-year survival rate is less than 50%. Cholangiocarcinoma is uncommon in the Western world, with estimates ranging from 0.5-2 people per 100,000 per year. In Southeast Asia, where liver flukes are common, rates are higher. In some parts of Thailand, the rate is 60 per 100,000 per year. It usually affects people in their 70s, but in people with primary sclerosing cholangitis, it happens in their 40s. In the Western world, the prevalence of cholangiocarcinoma of the liver has increased. Abnormal liver function tests, jaundice (yellowing of the eyes and skin caused by tumour blockage of bile ducts), abdominal pain (30%-50%), generalised itching (66%), weight loss (30%-50%), fever (up to 20%), and changes in stool or urine colour are the most common physical signs of cholangiocarcinoma. To some extent, the symptoms are determined by the tumour's location: People with cholangiocarcinoma in the extra hepatic bile ducts (outside the liver) are more likely to have jaundice, whereas those with tumours in the bile ducts within the liver are more likely to have pain without jaundice. Blood tests for liver function in Cholangiocarcinoma patients frequently reveal an "obstructive picture," with elevated bilirubin, alkaline phosphatase, and gamma glutamyl transferase levels and relatively normal transaminase levels.

CONCLUSION

Such laboratory findings point to bile duct obstruction as the primary cause of jaundice, rather than inflammation or infection of the liver parenchyma. Although the majority of patients present with no known risk factors, a number of risk factors for the development of cholangiocarcinoma have been identified. The most common of these in the Western world is primary sclerosing cholangitis (PSC), an inflammatory disease of the bile ducts that is closely associated with ulcerative colitis.

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CONFLICTS OF INTEREST

The author's declared that they have no conflict of interest.

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