Biomarkers (Liquid Biopsy)

- ✓ Serum and urine tests that could show RNA biomarkers present in the tumor tissue, making it a plausible method to diagnose CCA earlier

Clinical Trials

- ✓ www.genomicfocus.com
- ✓ CAPTUR website (Canadian) https://clinicaltrials.gov/ct2/show/NCT03297606
- ✓ Website for clinical trials world wide https://www.clinicaltrials.gov

Prognosis

- ✓ Aggressive cancer with a median survival rate of 6-12 months, if unresectable at diagnosis
- ✓ The only cure at this time is totally resectable tumor.
- ✓ Globally the 5 year survival rate is 10%

Prevention

- ✓ Stop smoking
- ✓ Reduce risk of liver disease: drink alcohol in moderation (0-2 drinks /week),
- ✓ Maintain a healthy weight
- ✓ Cook meat thoroughly
- ✓ Follow directions when working with chemicals

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Cholangio-Hepatocellular Carcinoma Canada
Carcinome Cholangio-Hepatocellulaire Canada
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Cholangiocarcinoma (CCA)

(Bile duct cancer)

Cholangiocarcinome

(Cancer des voies biliaires)

What do the bile ducts do?

The bile ducts are the tubes that connect the liver and gall bladder to the small intestine. Bile is produced in the liver and the bile ducts allow bile to be delivered from the liver and gall bladder to the small bowel to aid in fat digestion.

What is cholangiocarcinoma?

This is a cancer of the bile ducts: There are three different types of cholangiocarcinoma (CCA), based on location:

1**. Intrahepatic cholangiocarcinoma** (iCCA) found in bile ducts within the liver,

2. **Extrahepatic or distal cholangiocarcinoma** (dCCA) found in the part of the bile ducts outside the liver

3. **Hilar cholangiocarcinoma or Klatskin's tumor** (pCCA) where the right and left bile ducts join.

Signs and Symptoms

- ✓ Jaundice (yellowing of the skin and eyes)
- ✓ Dark urine
- ✓ Clay coloured stool
- ✓ Pain in the abdomen
- ✓ Itchy skin
- ✓ Fever
- ✓ Nausea and vomiting
- ✓ Fatigue
- ✓ Weight loss

Risk Factors

Most CCA occur without a distinguishing cause.

- ✓ Primary sclerosing cholangitis (PSC), an autoimmune disorder
- ✓ Primary biliary stones (gallstones)
- ✓ Chronic viral infection with Hepatitis B or C
- ✓ Ulcerative colitis
- ✓ Liver flukes (parasitic worms)
- ✓ Diabetes
- ✓ Chemical exposure
- ✓ Congenital conditions: Abnormal joining of the bile and pancreatic ducts and Choledochal cysts, abnormal dilations of the bile ducts outside the liver (rare)

Associated with cholangiocarcinoma

- ✓ Obesity
- ✓ Alcohol consumption
- ✓ Tobacco smoking
- ✓ Cirrhosis of the liver
- ✓ MASLD used to be called NAFLD (Non-alcoholic fatty liver disease)
- ✓ Metabolic syndrome

Diagnosis

- ✓ Blood chemistry tests.
- ✓ Tumor marker tests. CEA and CA-19-9
- ✓ Biopsy
- ✓ Ultrasound
- ✓ CT scan.
- ✓ Laparoscopy.
- ✓ Biomarkers

Treatment:

Discuss options with physician

- ✓ Surgery - removal of part of the bile duct if the tumor is small or partial hepatectomy or Whipple procedure
- ✓ Adjuvant therapy after surgery; chemotherapy or radiation therapy to lower risk of cancer returning
- ✓ Palliative surgery -Biliary bypass or Endoscopic stent placement
- ✓ Radiation therapy
- ✓ Chemotherapy used drugs to stop the growth of cancer cells
- ✓ Regional chemotherapy
- ✓ Immunotherapy
- ✓ Targeted therapy
- ✓ Yttrium-90 radiotherapy
- ✓ Histotripsy