Klatskin Tumor

Klatskin tumor is malignant cholangiocarcinoma arising from extrahepatic bile duct near the confluence of left and right hepatic ducts. It is hilar carcinoma. [1]

Epidemiology and Etiology

Klatskin tumor is quite rare, more in male sex in age > 60 years.[1] There is prooved connection between this malignant tumor and primary sclerosis cholangitis (autoimmune disease) and parasitic infection in biliary ducts (*Clonorchis sinensis* and *Opisthorchis viverrini*, both in Southeast Asia).

Pathology

It is cholangioccarcinoma (usually cylindrocellular adenocarcinoma) in more than 90% of cases, grows slowly, is locally agressive – can penetrate to portal vein, hepatic artery, liver parenchym. Metastasise quite late (lymph nodes in porta hepatis, liver).[1]

🔎 *For more information see Cholangiocarcinoma.*

Clinical Features

Symptomes are very similar to pancreatic head cancer:

- painless obstructive jaundice, possible Courvoisier sign;
- abdominal pain;
- weight loss.[2]

Diagnostic Methods[2]

- lab: higher bilirubin, tumormarker **CA 19-9** (but is not specific, can be found in patients with colon cancer, pancreatic cancer or biliary obstruction);
- USG: possible biliary duct dilatation, gallbladder dilatation;
- **EUSG**: through the wall of the stomach or duodenum is possible find the tumor;
- **MRCP**: is prefered more than ERCP, because MRCP is noninvasive methode which can show stage of tumor process;
- ERCP (endoscopic retrograde cholangio-pancreatography) should be prefered only if there is no MRCP examination possible or is neccesary therapeutic intervention of biliary obstruction (stent);
- **CT**: computer tomography is always neccesary in staging, results of CT will decide about the therapy, should be always performed before ERCP (because we need to have images before intervention)!

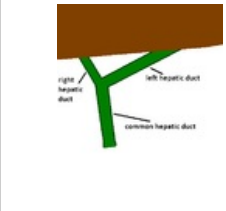
Classification

TNM Classification[3]

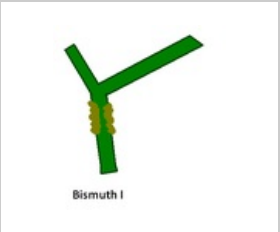
- Tis – carcinoma in situ;
- T1 – tumor is in muscular layer of biliar duct;
- T2a – tumor penetrates to lipid tissue;
- T2b – tumor petetrates to liver parenchym;
- T3 – tumor penetrates to left or right portal vein or left or right hepatic artery;
- T4 – tumor penetrates to portal vein, or left and right portal vein, or common hepatic artery, ...

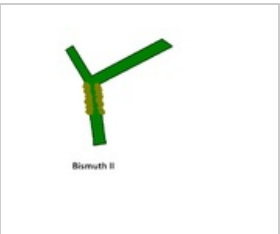
🔎 *For more information see TNM.*

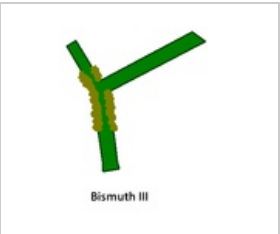
Bismuth classification

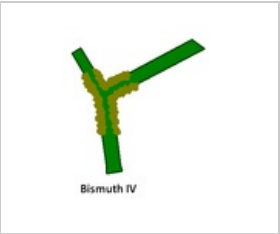


hepatic ducts anatomy









STAGE	T	N	M
Stage 0	Tis	N0	M0
Stage I	T1	N0	M0
Stage II	T2a, T2b	N0	M0
Stage IIIa	T3	N0	M0
Stage IIIb	T1, T2, T3	N1	M0
Stage IVa	T4	N0, N1	M0
Stage IVb	T1-T4	N0, N1	M1

Bismuth Classification

is based on tomor's localization in extrahapatic biliary tree:

- **Bismuth I** – tumor of common hepatic duct, not reaching the junction;
- **Bismuth II** – tumor of common hepatic duct, reaching the junction;
- **Bismuth III** – tumor of common hepatic duct and left or right hepatic duct;
- **Bismuth IV** – tumor of common hepatic duct and left ahd right hepatic duct.

Therapy

Curative Therapy

Only **radical tumor resection** can be curative and should be performed only in stage I or II of TNM classification. It is extensive surgery with bile duct and right liver lobe (or extend right liver lobe) resection and hepaticojejunoanastomosis (Roux Y-loop).

Paliative Therapy

In nonoperable tumors (TNM stage III and IV) is **chemotherapy** performed. Usually gemcitabine (nukleosid analogue) and cisplatin. Average survival time is 8.5 months.[4]

Paliative therapy is based on **hepatic ducts patency** (drainage of bile):

- internal drainage – (metalic) stent via ERCP;
- external drainage – PTD (percutaneous transhepatic drainage).

Last but not least is **therapy of pain**.

Links

Related articles

- Pancreatic Cancer
- Cholangiocarinoma

References

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