GALL BLADDER CANCER

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GROUP-11

SEM-5

INTRODUCTION

- PRIMARY CARCINOMA OF THE GALLBLADDER IS MORE PREVALENT THAN OTHER CANCERS OF THE EXTRAHEPATIC BILIARY TRACT. LIKE CHOLELITHIASIS AND CHOLECYSTITIS, IT IS MORE FREQUENT IN WOMEN THAN IN MEN (RATIO 4:1) WITH A PEAK INCIDENCE IN 7^{TH} DECADE OF LIFE. IT MAY REMAIN UNDETECTED UNTIL THE TIME IT IS WIDELY SPREAD AND RENDERED INOPERABLE.

ETIOLOGY

NUMBER OF ETIOLOGIC FACTORS HAVE BEEN IMPLICATED.

1. CHOLELITHIASIS AND CHOLECYSTITIS.

THE MOST SIGNIFICANT ASSOCIATION OF CANCER OF THE GALLBLADDER IS WITH CHOLELITHIASIS AND CHOLECYSTITIS, THOUGH THERE IS NO DEFINITE EVIDENCE OF CAUSAL RELATIONSHIP. CHOLELITHIASIS AND CHOLECYSTITIS ARE PRESENT IN ABOUT 75% CASES OF GALLBLADDER CANCER. ON THE OTHER HAND, INCIDENCE OF DOCUMENTED GALLBLADDER CANCER IN THE PRESENCE OF CHOLELITHIASIS AND CHOLECYSTITIS IS ABOUT 0.5% ONLY. PORCELAIN GALLBLADDDER IS PARTICULARLY LIKELY TO BECOME CANCEROUS.

Figure 21.46 Carcinoma gallbladder. The lumen of the gallbladder contains irregular, friable papillary growth arising from mucosa (arrow). Two multi-faceted gallstones (mixed) are also present in the lumen.

2. CHEMICAL CARCINOGENS.

A NUMBER OF CHEMICAL CARCINOGENS STRUCTURALLY SIMILAR TO NATURALLY-OCCURRING BILE ACIDS HAVE BEEN CONSIDERED TO INDUCE GALLBLADDER CANCER. THESE INCLUDE METHYL CHOLANTHRENE, VARIOUS NITROSAMINES AND PESTICIDES. WORKERS ENGAGED IN RUBBER INDUSTRY HAVE HIGHER INCIDENCE OF GALLBLADDER CANCER.

3. GENETIC FACTORS.

THERE IS HIGHER INCIDENCE OF CANCER OF THE GALLBLADDER IN CERTAIN POPULATIONS LIVING IN THE SAME GEOGRAPHIC REGION SUGGESTING A STRONG GENETIC COMPONENT IN THE DISEASE. JAPANESE IMMIGRANTS AND NATIVE AMERICANS OF THE SOUTH-WESTERN AMERICA HAVE INCREASED FREQUENCY WHILE AMERICAN INDIANS AND MEXICANS HAVE LOWER INCIDENCE

4. MISCELLANEOUS.

PATIENTS WHO HAVE UNDERGONE PREVIOUS SURGERY ON THE BILIARY TRACT HAVE HIGHER INCIDENCE OF SUBSEQUENT GALLBLADDER CANCER. PATIENTS WITH INFLAMMATORY BOWEL DISEASE (ULCERATIVE COLITIS AND CROHN'S DISEASE) HAVE HIGH INCIDENCE OF GALLBLADDER CANCER.

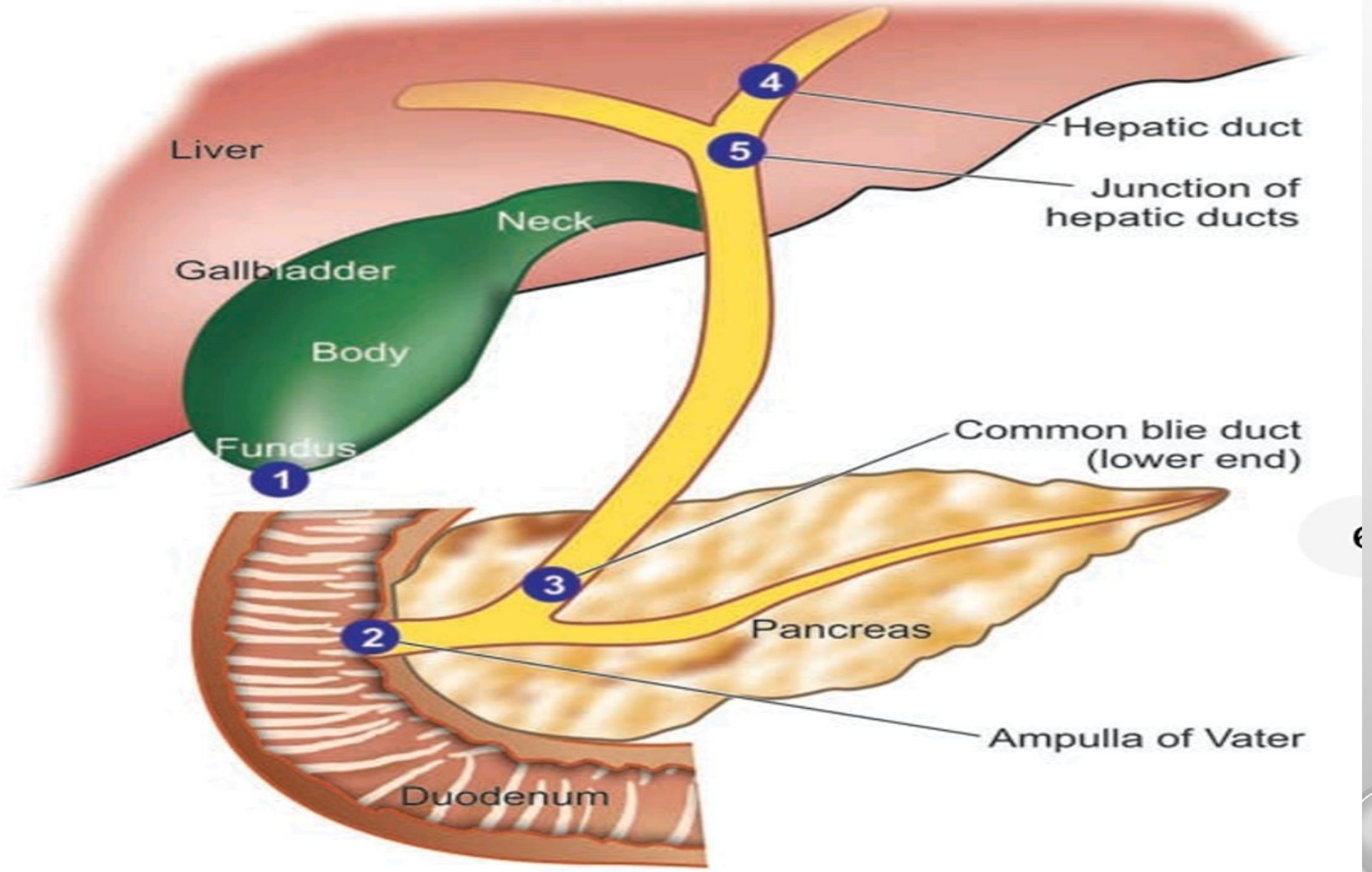
MORPHOLOGICAL FEATURES

THE COMMONEST SITE IS THE FUNDUS, FOLLOWED NEXT IN FREQUENCY BY THE NECK OF THE GALLBLADDER .

GROSSLY, CANCER OF THE GALLBLADDER IS OF 2 TYPES—INFILTRATING AND FUNGATING TYPE

1. INFILTRATING TYPE

APPEARS AS AN IRREGULAR AREA OF DIFFUSE THICKENING AND INDURATION OF THE GALLBLADDER WALL. IT MAY HAVE DEEP ULCERATION CAUSING DIRECT INVASION OF THE GALLBLADDER WALL AND LIVER BED. ON SECTION, THE GALLBLADDER WALL IS FIRM DUE TO SCIRRHOUS GROWTH.


Liver
Neck
Gallbladder
Body
Fundus
1
2
3
4
5
Hepatic duct
Junction of hepatic ducts
Common blie duct (lower end)
Pancreas
Ampulla of Vater
Duodenum

2. FUNGATING TYPE

GROWS LIKE AN IRREGULAR, FRIABLE, PAPILLARY OR CAULIFLOWER-LIKE GROWTH INTO THE LUMEN AS WELL AS INTO THE WALL OF THE GALLBLADDER AND BEYOND.

HISTOLOGICAL FEATURES

1. MOST GALLBLADDER CANCERS ARE ADENOCARCINOMAS (90%). THEY MAY BE PAPILLARY OR INFILTRATIVE, WELL-DIFFERENTIATED OR POORLY-DIFFERENTIATED. MOST ARE NON-MUCIN SECRETING BUT SOME ARE COLLOID CARCINOMAS FORMING MUCUS POOLS.

2. ABOUT 5% OF GALLBLADDER CANCERS ARE SQUAMOUS CELL CARCINOMAS ARISING FROM SQUAMOUS METAPLASTIC EPITHELIUM.

3. A FEW CASES SHOW BOTH SQUAMOUS AND ADENOCARCINOMA PATTERN OF GROWTH CALLED ADENOSQUAMOUS CARCINOMA.

CLINICAL FEATURES

- CARCINOMA OF THE GALLBADDER IS SLOW-GROWING AND CAUSES SYMPTOMS LATE IN THE COURSE OF DISEASE.
- QUITE OFTEN, THE DIAGNOSIS IS MADE WHEN GALLBLADDER IS REMOVED FOR CHOLELITHIASIS.
- THE SYMPTOMATIC CASES HAVE PAIN, JAUNDICE, NOTICEABLE MASS, ANOREXIA AND WEIGHT LOSS. IN SUCH CASE, THE GROWTH HAS USUALLY INVADED THE LIVER AND OTHER ADJACENT ORGANS AND HAS METASTASISED TO REGIONAL LYMPH NODES AND MORE DISTANT SITES SUCH AS THE LUNG, PERITONEUM AND GASTROINTESTINAL TRACT.

DIAGNOSIS

- **BLOOD TESTS.** BLOOD TESTS TO EVALUATE YOUR LIVER FUNCTION MAY HELP YOUR DOCTOR DETERMINE WHAT'S CAUSING YOUR SIGNS AND SYMPTOM
- **PROCEDURES TO CREATE IMAGES OF THE GALLBLADDER**. IMAGING TESTS THAT CAN CREATE PICTURES OF THE GALLBLADDER INCLUDE ULTRASOUND, COMPUTERIZED TOMOGRAPHY (CT) AND MAGNETIC RESONANCE IMAGING (MRI).
- **EXPLORATORY SURGERY**. YOUR DOCTOR MAY RECOMMEND SURGERY TO LOOK INSIDE YOUR ABDOMEN FOR SIGNS THAT GALLBLADDER CANCER HAS SPREAD.

IN A PROCEDURE CALLED LAPAROSCOPY, THE SURGEON MAKES A SMALL INCISION IN YOUR ABDOMEN AND INSERTS A TINY CAMERA. THE CAMERA ALLOWS THE SURGEON TO EXAMINE ORGANS SURROUNDING YOUR GALLBLADDER FOR SIGNS THAT THE CANCER HAS SPREAD.

TREATMENT

GALLBLADDER CANCER TREATMENT OPTIONS ARE AVAILABLE TO YOU WILL DEPEND ON THE STAGE OF YOUR CANCER.

- **SURGERY TO REMOVE THE GALLBLADDER**. EARLY GALLBLADDER CANCER THAT IS CONFINED TO THE GALLBLADDER IS TREATED WITH AN OPERATION TO REMOVE THE GALLBLADDER (CHOLECYSTECTOMY).
- **CHEMOTHERAPY**.CHEMOTHERAPY USES DRUGS TO KILL RAPIDLY GROWING CELLS, INCLUDING CANCER CELLS. CHEMOTHERAPY CAN BE ADMINISTERED THROUGH A VEIN IN YOUR ARM, IN PILL FORM OR BOTH.
- **RADIATION THERAPY.**RADIATION THERAPY USES HIGH-POWERED BEAMS OF ENERGY, SUCH AS X-RAYS AND PROTONS, TO KILL CANCER CELLS.
- **IMMUNOTHERAPY**.IMMUNOTHERAPY IS A DRUG TREATMENT THAT HELPS YOUR IMMUNE SYSTEM TO FIGHT CANCER. YOUR BODY'S DISEASE-FIGHTING IMMUNE SYSTEM MIGHT NOT ATTACK CANCER BECAUSE THE CANCER CELLS PRODUCE PROTEINS THAT MAKE IT HARD FOR THE IMMUNE SYSTEM CELLS TO RECOGNIZE THE CANCER CELLS AS DANGEROUS. IMMUNOTHERAPY WORKS BY INTERFERING WITH THAT PROCESS.

Thank You!