



SNS COLLEGE OF ALLIED HEALTH SCIENCES

SNS Kalvi Nagar, Coimbatore - 35

Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT OF PHYSICIAN ASSISTANT

COURSE NAME: SURGERY

II YEAR

UNIT II: peritoneum

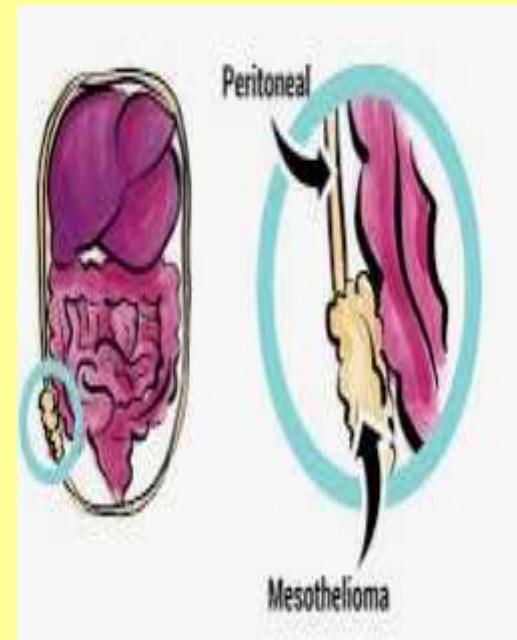
TOPIC 1: Cancer peritoneum



Definition



- Peritoneal cancer is a rare cancer. It develops in a thin layer of tissue that lines the abdomen. It also covers the uterus, bladder, and rectum. Made of epithelial cells, this structure is called the peritoneum. It produces a fluid that helps organs move smoothly inside the abdomen.
- Peritoneal cancer is not the same as intestinal or stomach cancer. Peritoneal cancer starts in the peritoneum, and hence is called primary peritoneal cancer.





FIGO stages for ovarian, fallopian tube, and peritoneal cancer



- **Stage I:** The cancer is only in the ovaries or fallopian tubes.
- **Stage IA:** The cancer is only inside 1 ovary or fallopian tube. No cancer is found on the ovarian or fallopian tube surface or in the abdomen.
- **Stage IB:** The cancer is in both ovaries or fallopian tubes. No cancer is found on the surface of the ovary or fallopian tube or in the peritoneal fluid or washings.
- **Stage IC:** The cancer is in 1 or both ovaries or fallopian tubes, with any of the following:
 - **Stage IC1:** The tumor ruptures while it is being removed surgically, called intraoperative surgical spill.
 - **Stage IC2:** The tumor wall is ruptured before surgery, or there is cancer on the surface of the ovary or fallopian tube.
 - **Stage IC3:** Cancer cells are found in fluid buildup in the abdominal cavity, called ascites, or in the samples of fluid from the peritoneal cavity taken during surgery.



- Stage II: The cancer involves 1 or both of the ovaries or fallopian tubes and has spread below the pelvis, or it is peritoneal cancer.
- Stage IIA: The cancer has spread to the uterus and/or fallopian tubes and/or the ovaries.
- Stage IIB: The cancer has spread to other tissues within the pelvis.



- Stage III: The cancer involves 1 or both of the ovaries or fallopian tubes, or it is peritoneal cancer. It has spread to the peritoneum outside the pelvis and/or to lymph nodes in the retroperitoneum (lymph nodes along the major blood vessels, such as the aorta) behind the abdomen.
- Stage IIIA1: The cancer has spread to the retroperitoneal lymph nodes, which are found at the back of the abdomen, but not to the peritoneal surfaces.
- Stage IIIA1(i): Metastases, or areas of spread, are 10 millimeters (mm) or smaller.
- Stage IIIA1(ii): Metastases are larger than 10 mm.
- Stage IIIA2: The cancer has spread microscopically from the pelvis to the abdomen. Cancer may or may not have spread to lymph nodes in the back of the abdomen.
- Stage IIIB: The cancer has visibly spread past the pelvis to the abdomen and is 2 centimeters (cm) or smaller, with or without spread to the retroperitoneal lymph nodes. A centimeter is roughly equal to the width of a standard pen or pencil.
- Stage IIIC: The cancer has visibly spread past the pelvis to the abdomen and is larger than 2 cm, with or without spread to the retroperitoneal lymph nodes.



- Stage IV: The cancer has spread to organs outside of the abdominal area.
- Stage IVA: The cancer has spread to fluid around the lungs.
- Stage IVB: The cancer has spread to the liver or spleen or to organs beyond the abdomen, including lymph nodes in the groin outside of the abdominal cavity.



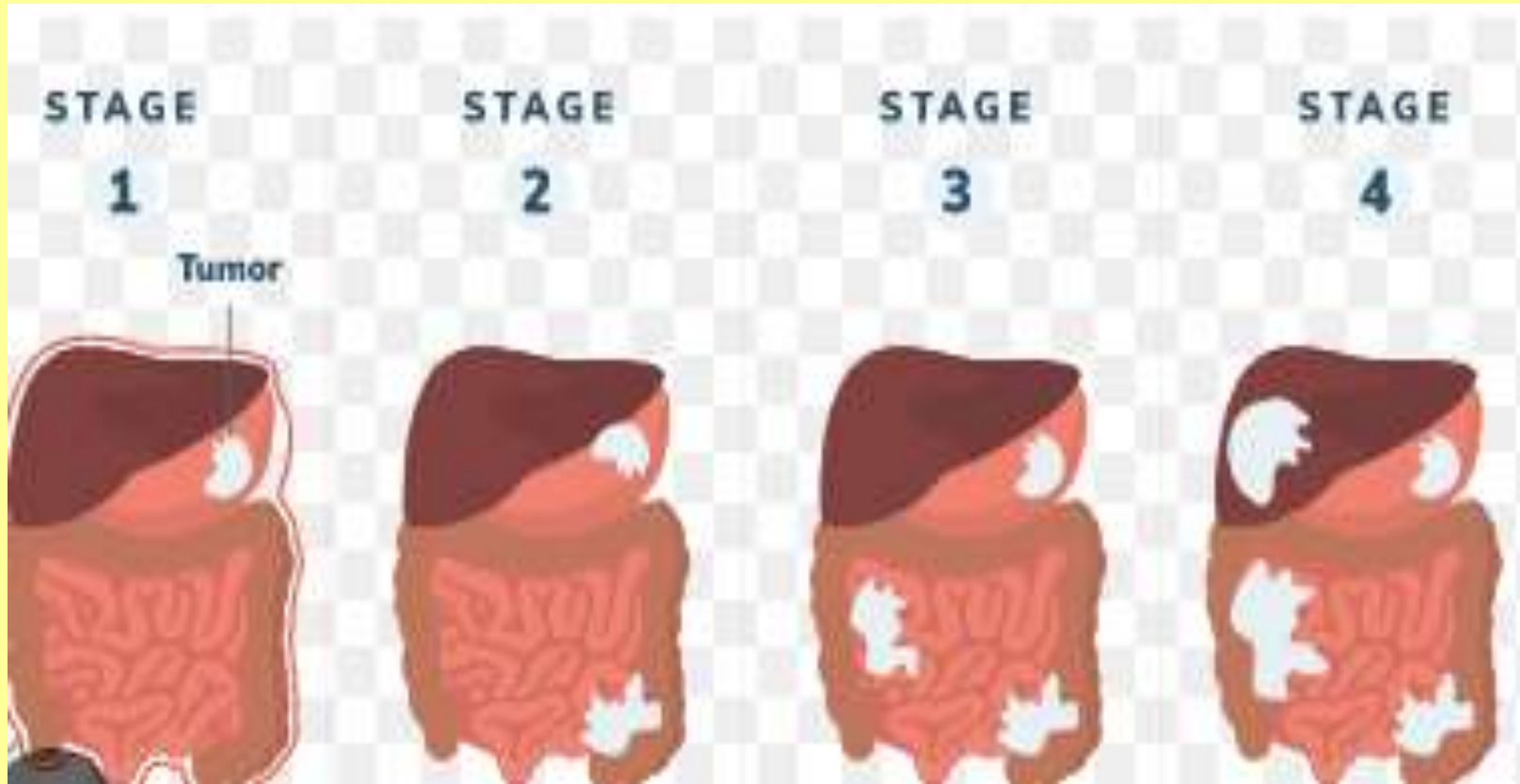
Grades



- Grade 1: The tissue is well differentiated. This means the cells look and are organized within the tumor like normal cells. These tumors tend to grow slowly.
- Grade 2: The tissue is moderately differentiated. It shares features between well and poorly differentiated. Grade 2 is not commonly used.
- Grade 3: The tissue is poorly differentiated or undifferentiated. All or most cells appear very abnormal and do not have any normal tissue structure. These tumors tend to grow fast and can spread rapidly.
- Information about the cancer's stage and grade will help the doctor recommend a specific treatment plan. The



Stages





Causes



- Primary causes of peritoneal cancer are unknown
- Secondary peritoneal carcinomatosis is commonly caused by invading malignant cells from tumors involving the stomach, colon, pancreas, gall bladder, appendix, breast, uterus, ovary, and lungs. The peritoneal involvement in appendiceal cancer is called pseudomyxoma peritonei (PMP).



Symptoms



- Nausea or diarrhea
- Constipation
- Frequent urination
- Loss of appetite
- Unexplained weight gain or loss
- Abnormal vaginal bleeding
- Rectal bleeding
- Shortness of breath



Diagnosis



physical exam, which involves examining for abnormalities in these areas:

- Uterus
- Vagina
- Ovaries
- Fallopian tubes
- Stomach
- Bladder
- Colon and rectum
- Tests you may have include:

Ultrasound-High-frequency sound waves produce a picture called a sonogram.



- **CA-125 blood test**-This test measures levels of a chemical in the blood called CA-125. If levels are high, peritoneal or ovarian cancer may be present. But CA-125 can be high for other reasons. So, this test cannot confirm a diagnosis of these cancers.
- **CT scan**
- **Lower GI series or barium enema**-With this test, you first receive an enema containing a white, chalky solution called barium. This outlines the colon and rectum on an X-ray. It makes it possible to spot some tumors and other problems.



- **Upper GI series**-With this test, barium is swallowed and the esophagus, stomach, and duodenum (the first part of the small intestine) are outlined on an X-ray.
- **Biopsy**
- **Paracentesis**



Type of treatment depends upon:

- The stage and grade of the cancer
- The size and location of the cancer
- age and overall health status



TREATMENT

- **HIPEC (hyperthermic intraperitoneal chemotherapy).** This is administration of heated chemotherapy into the peritoneum after surgery. This technique is common for peritoneal cancer that has spread from the appendix, colon, or stomach.
- **Palliative care.** Supportive care can help relieve symptoms of peritoneal cancer such as pain, weight loss, or fluid buildup.
- **Additional therapies** may be used, including **targeted therapy, hormonal therapy, and radiation therapy** for some advanced primary peritoneal cancers.



TREATMENT



cytoreduction surgery (CRS)
a surgical procedure that aims to reduce the amount of cancer cells in the abdominal cavity for patients with tumors that have spread intraabdominally (peritoneal carcinomatosis). It is often used to treat ovarian cancer but can also be used for other abdominal malignancies.

