



# Imaging Advanced Ovarian Cancer

How the Radiologist can help disease management

# Ovarian Cancer

- Second most common gynaecological malignancy
- 70 % of patients have peritoneal involvement on initial diagnosis
- Tumor dissemination : Direct extension, lymphatic pathways and peritoneal seeding
- Primary surgery followed by adjuvant chemotherapy
- Initial neo adjuvant chemotherapy followed by surgery

# Imaging Advanced Ovarian Cancer

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Primary diagnosis : CT remains the most widely used imaging modality for ovarian cancer assessment

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Percutaneous Biopsy of Omental disease

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Pre operative staging CT to identify sites of disease

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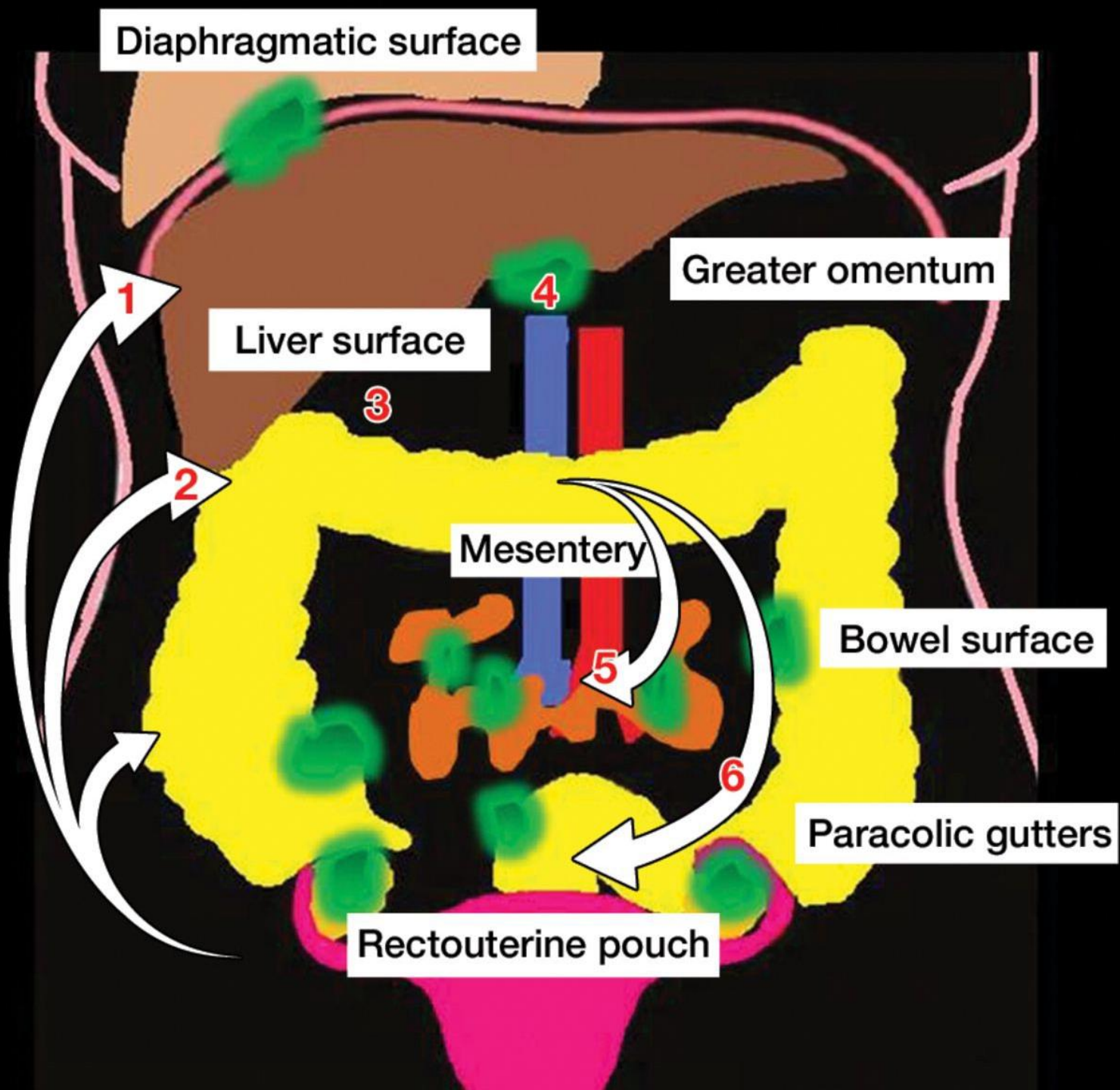
Follow up CT post Chemotherapy to assess response

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Identify disease recurrence. Role of FDG PET CT

# The Role of the Radiologist

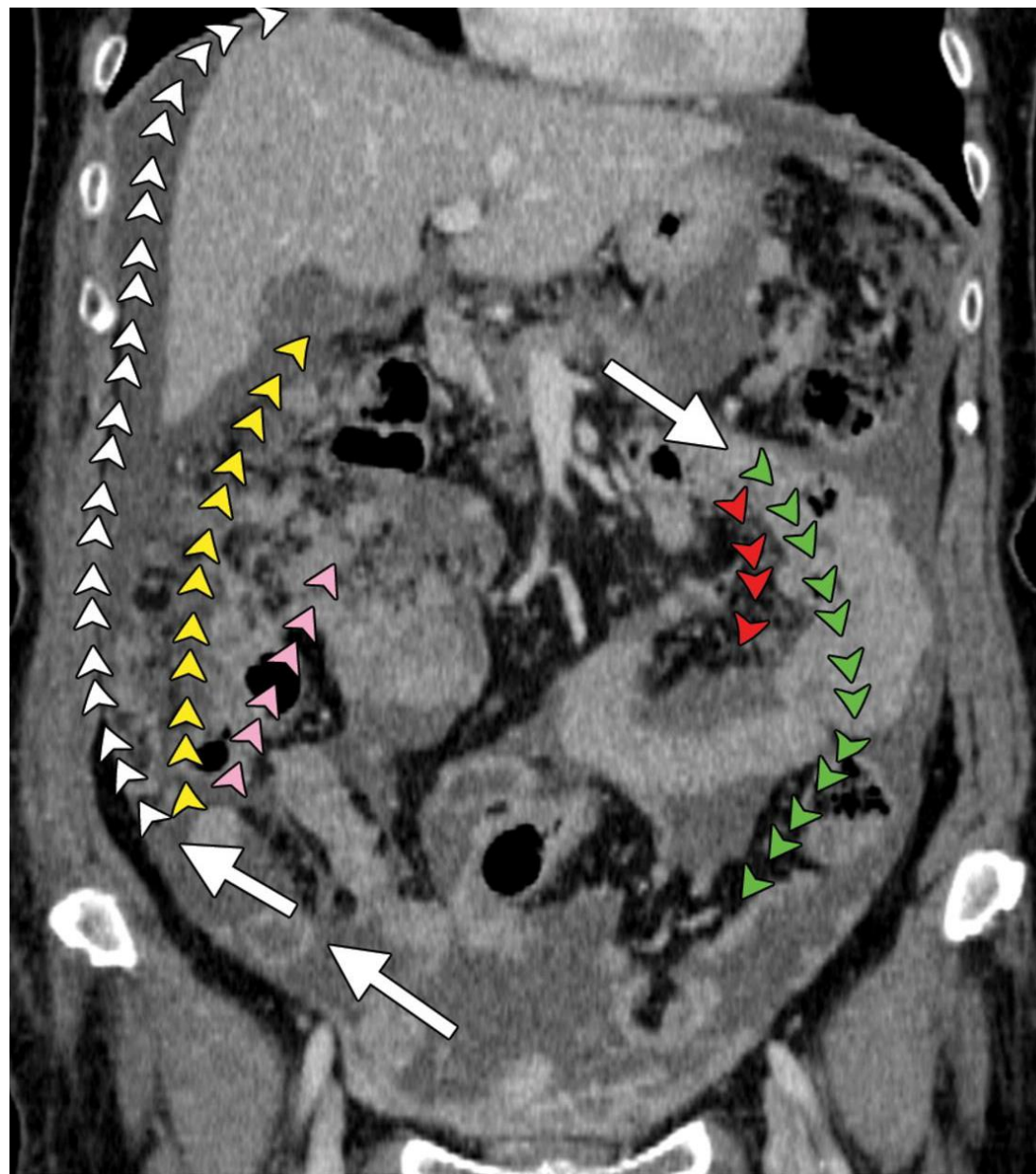
- Identify sites of disease to enable the selection of patients suitable for either primary debulking surgery or Neo adjuvant chemotherapy
- Alert the surgeon to disease which may complicate surgery/preclude optimal debulking
- Identify sites of disease amenable to primary debulking but not readily visible during surgery
- Identify the requirement for other specialist expertise
- Intention should be complete macroscopic clearance of disease.



Pathways of spread of ovarian cancer within the peritoneal cavity

# Disease spread on CT

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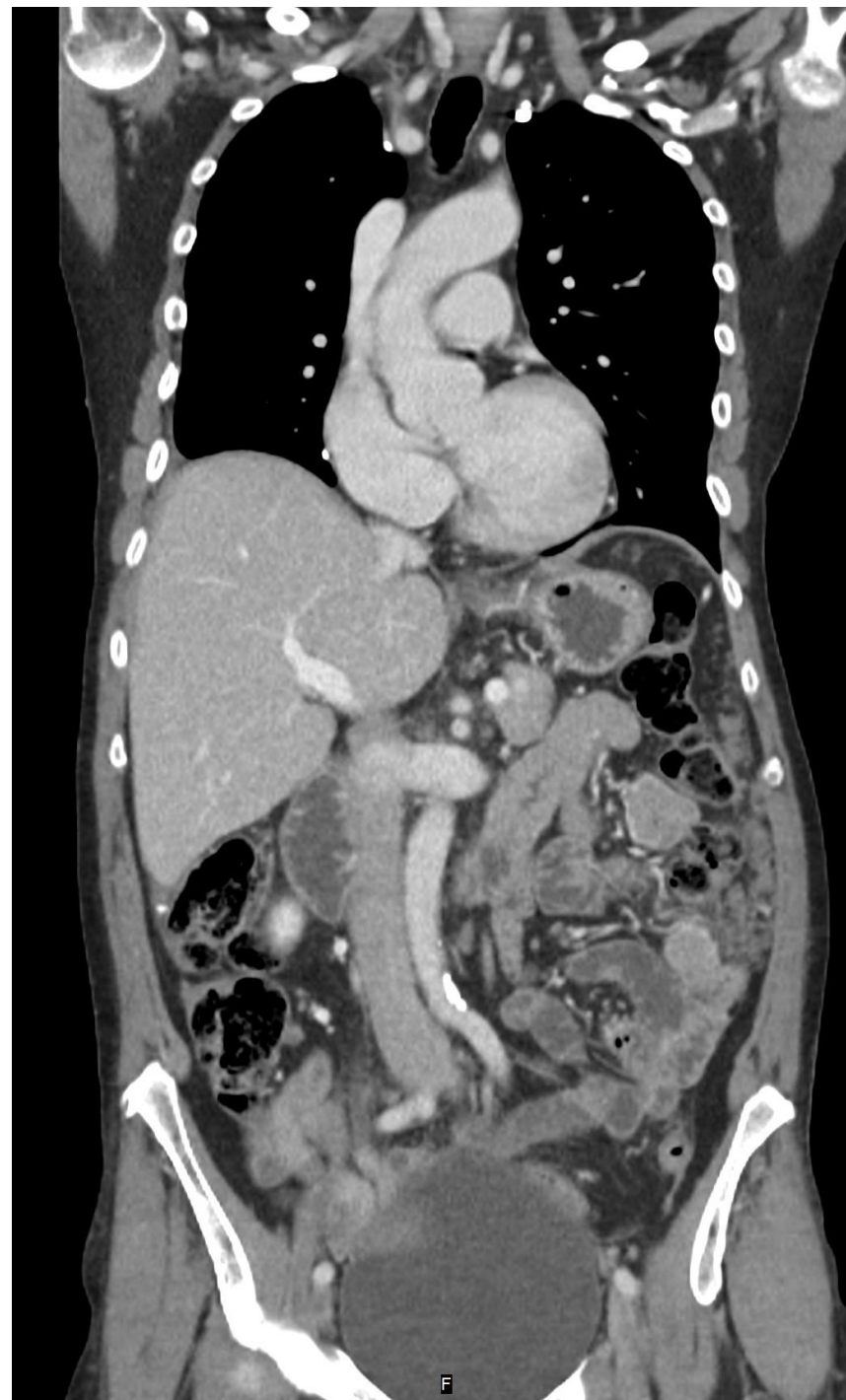
# Infracolic Omental

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Left paracolic

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# Pouch of Douglas

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Subdiaphragmatic

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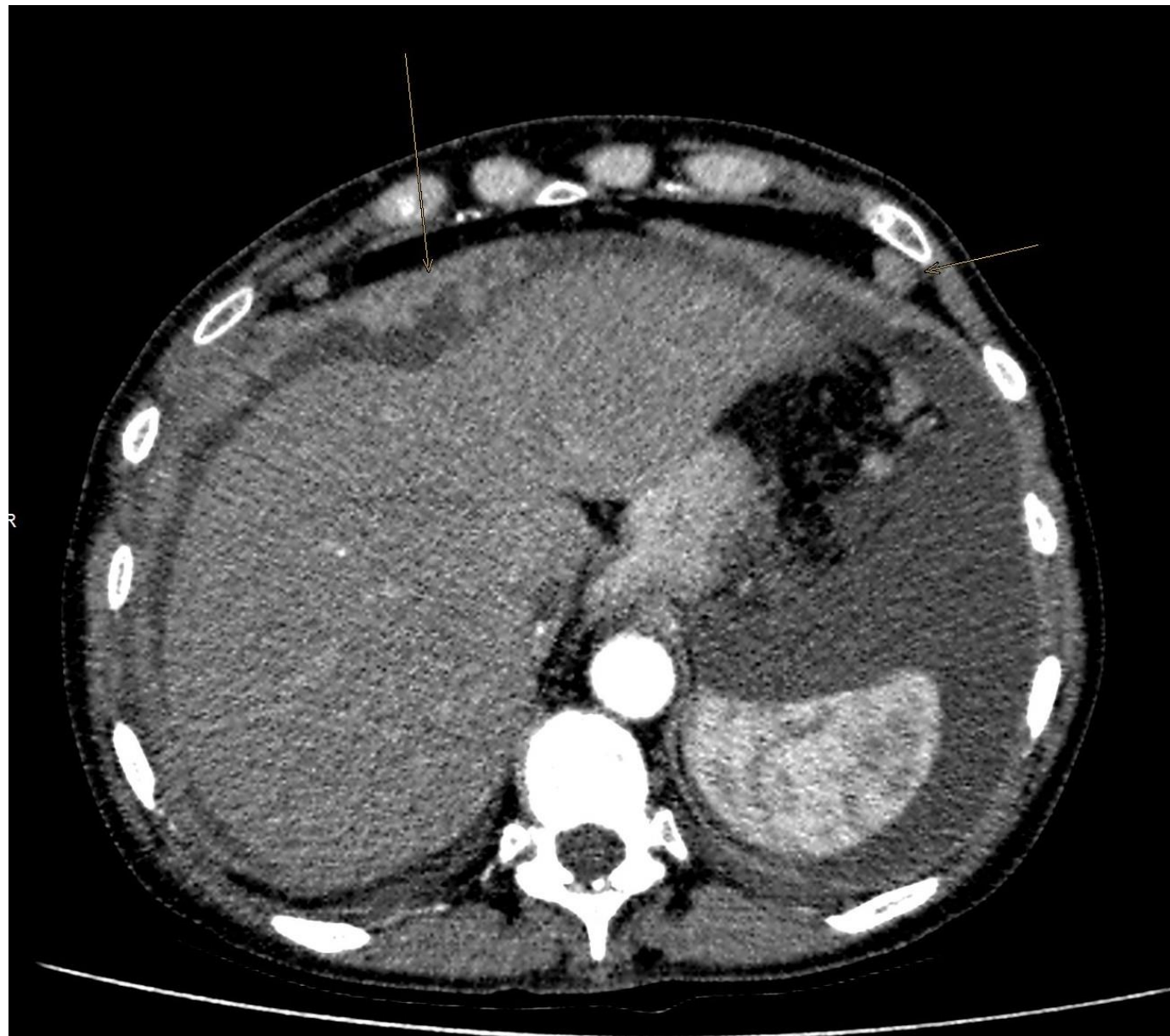
# Left para aortic nodes

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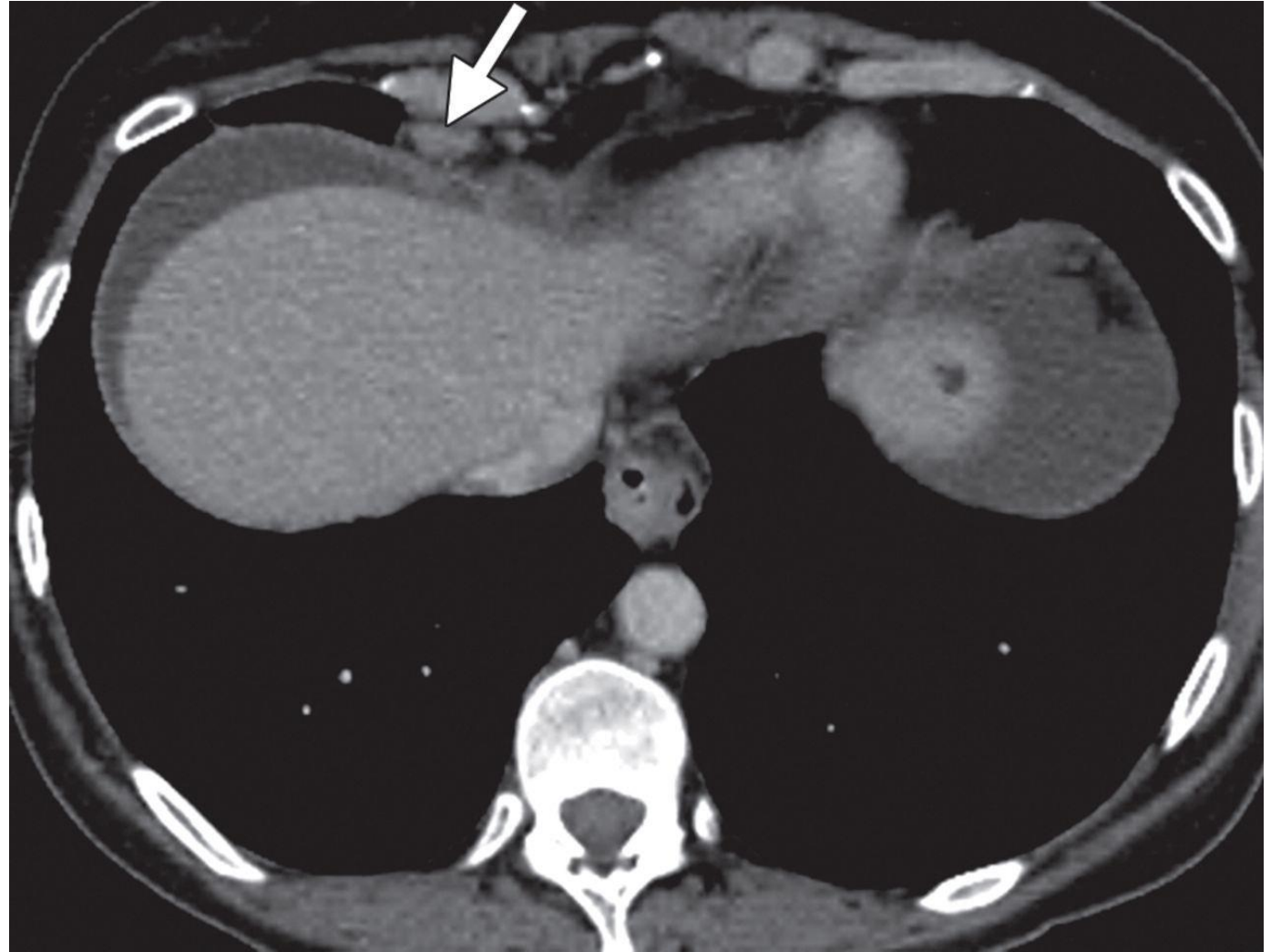


# Anterior diaphragmatic disease

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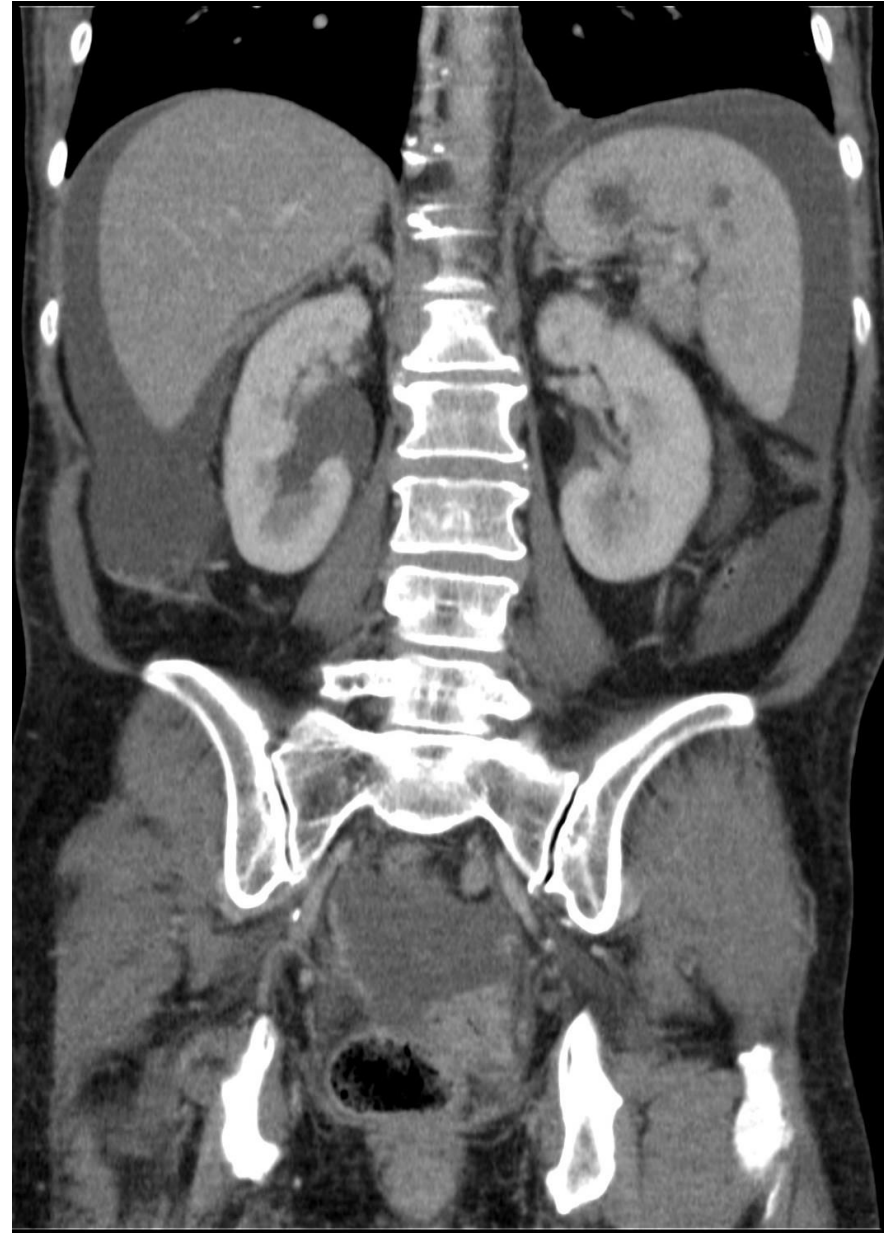


# Cardiophrenic nodes



# Spleen and Splenic hilum

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Gastro splenic

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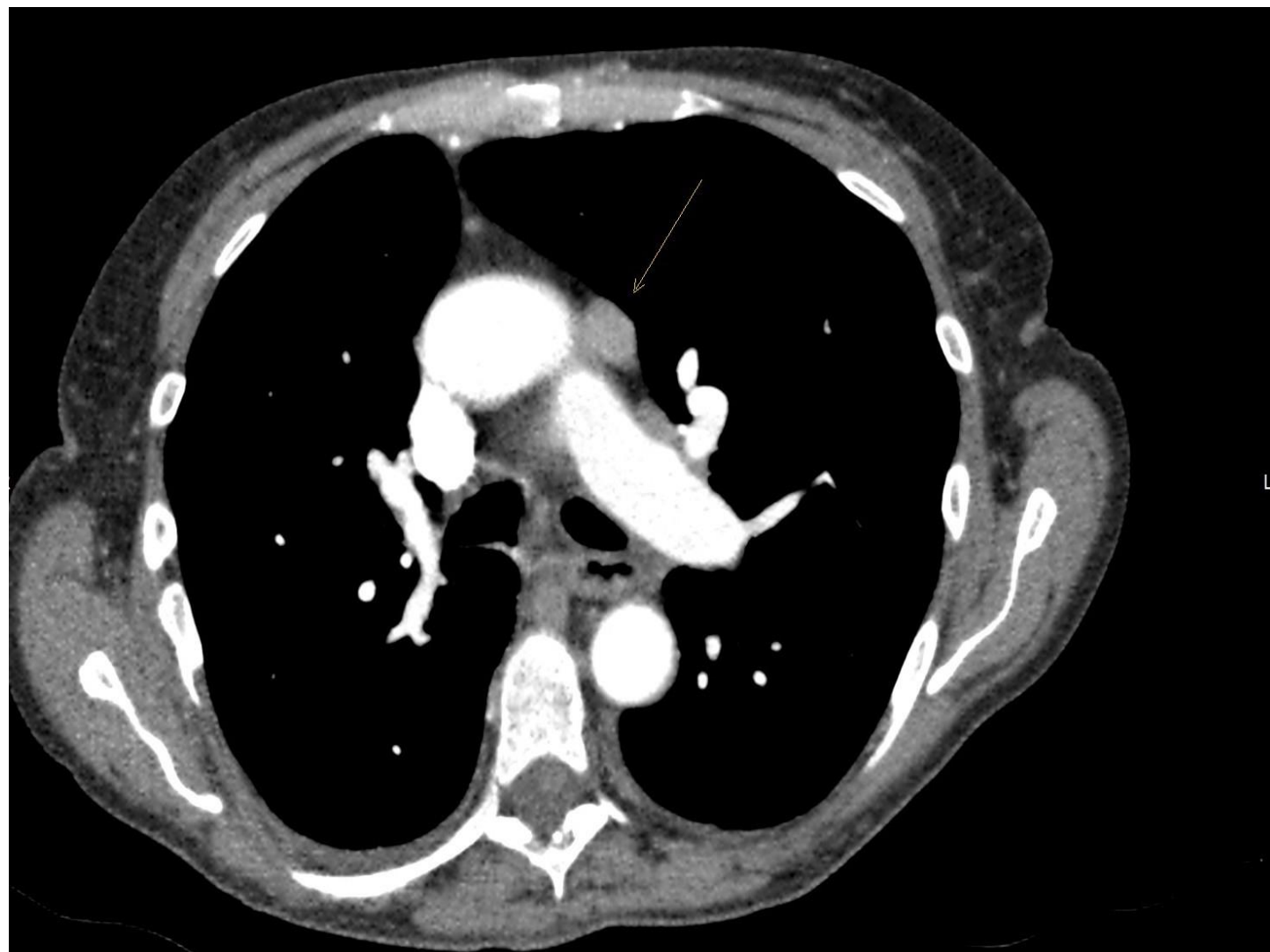
# Potentially unresectable disease

- Extensive disease in the chest
- Root of the mesentery
- Central or multisegment liver metastases
- Mediastinal and SCF nodes
- Lymph nodes above the coeliac axis
- Non focal Pleural infiltration
- Invasive disease at the Porta hepatis
- Diffuse involvement of stomach and duodenum
- Head or middle part of pancreas



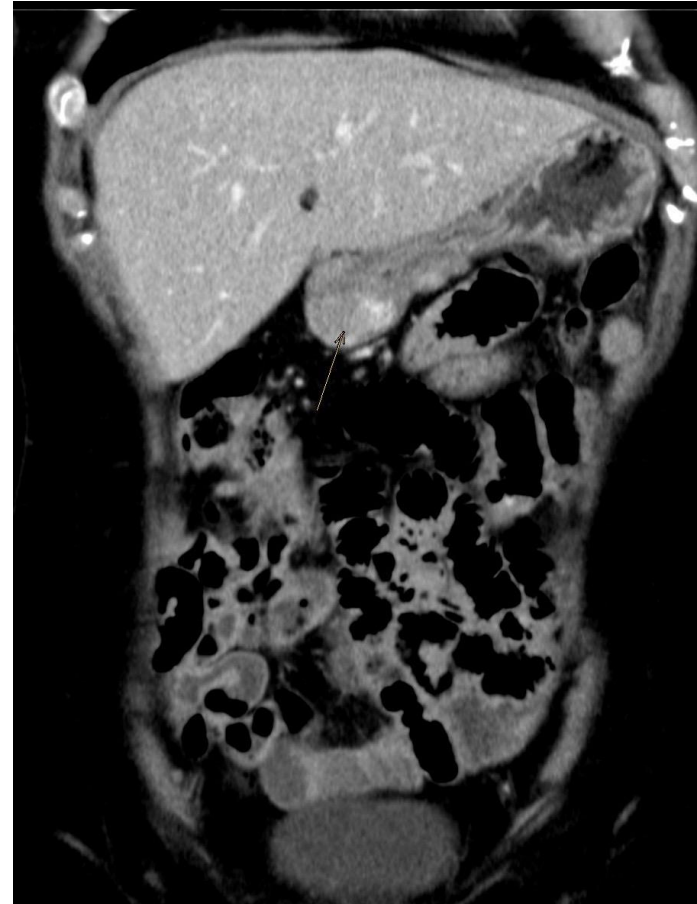
Mediastinal  
node

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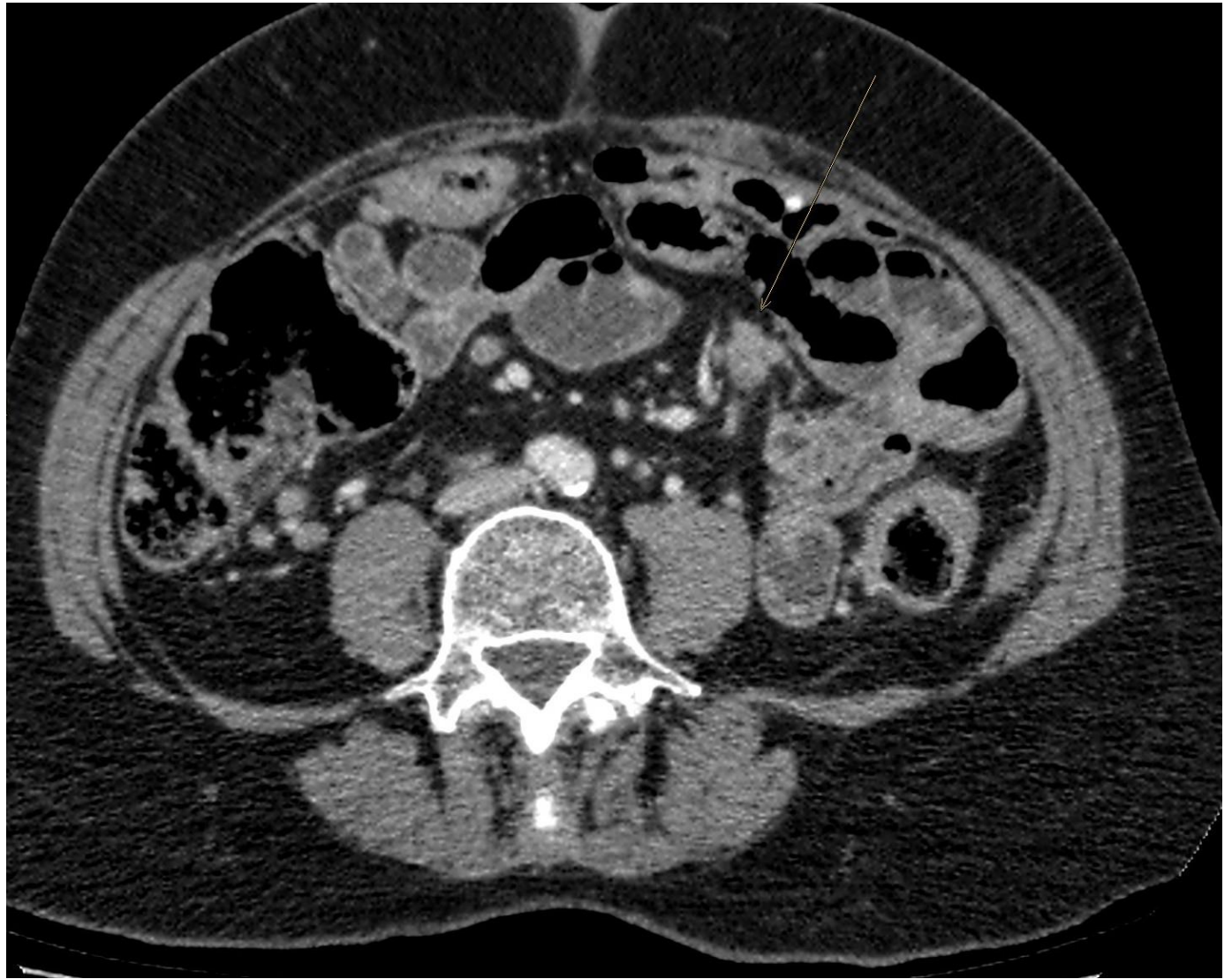
# Serosal deposit lesser curvature

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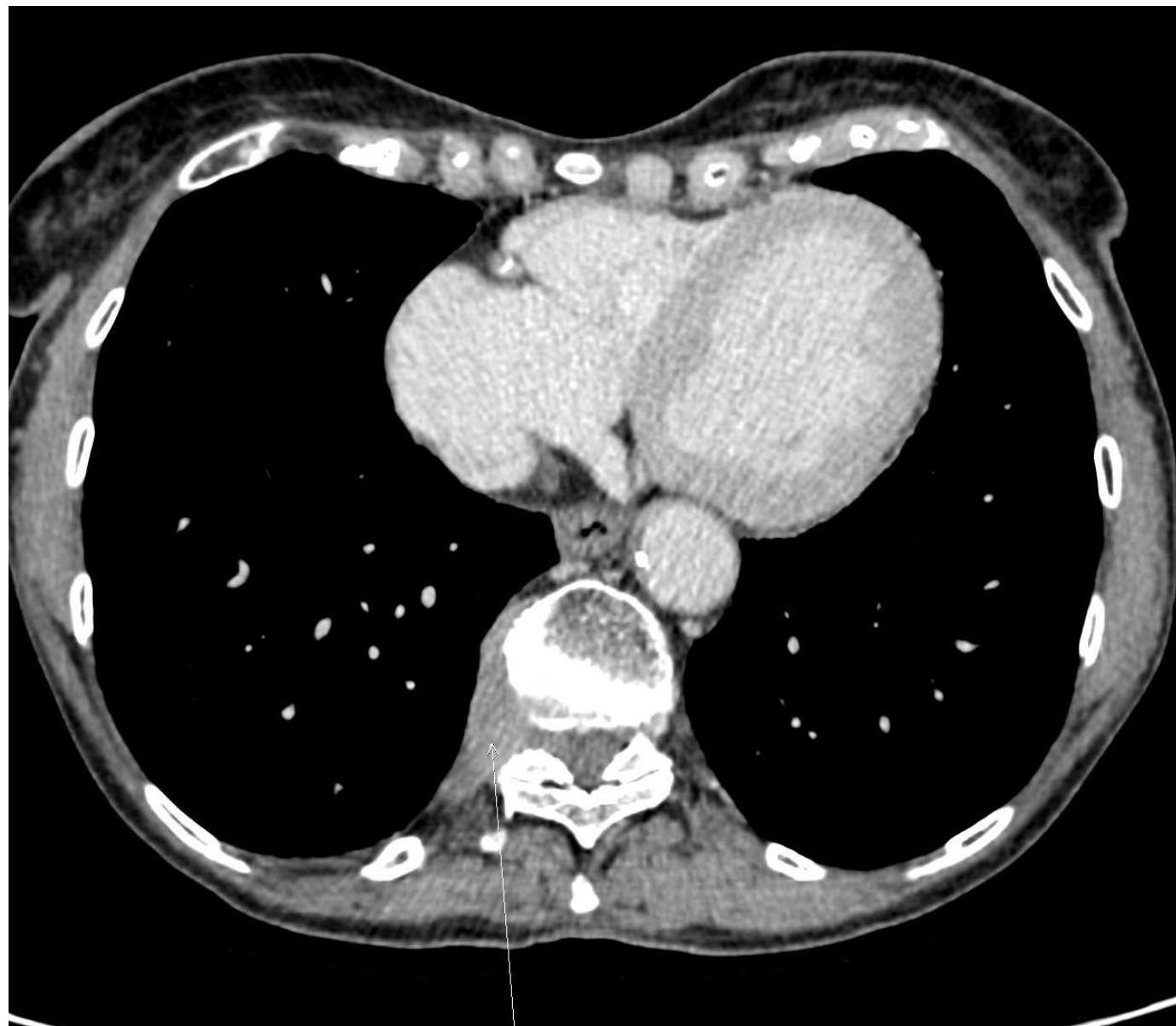
Large  
mesenteric  
deposit over  
2 cms

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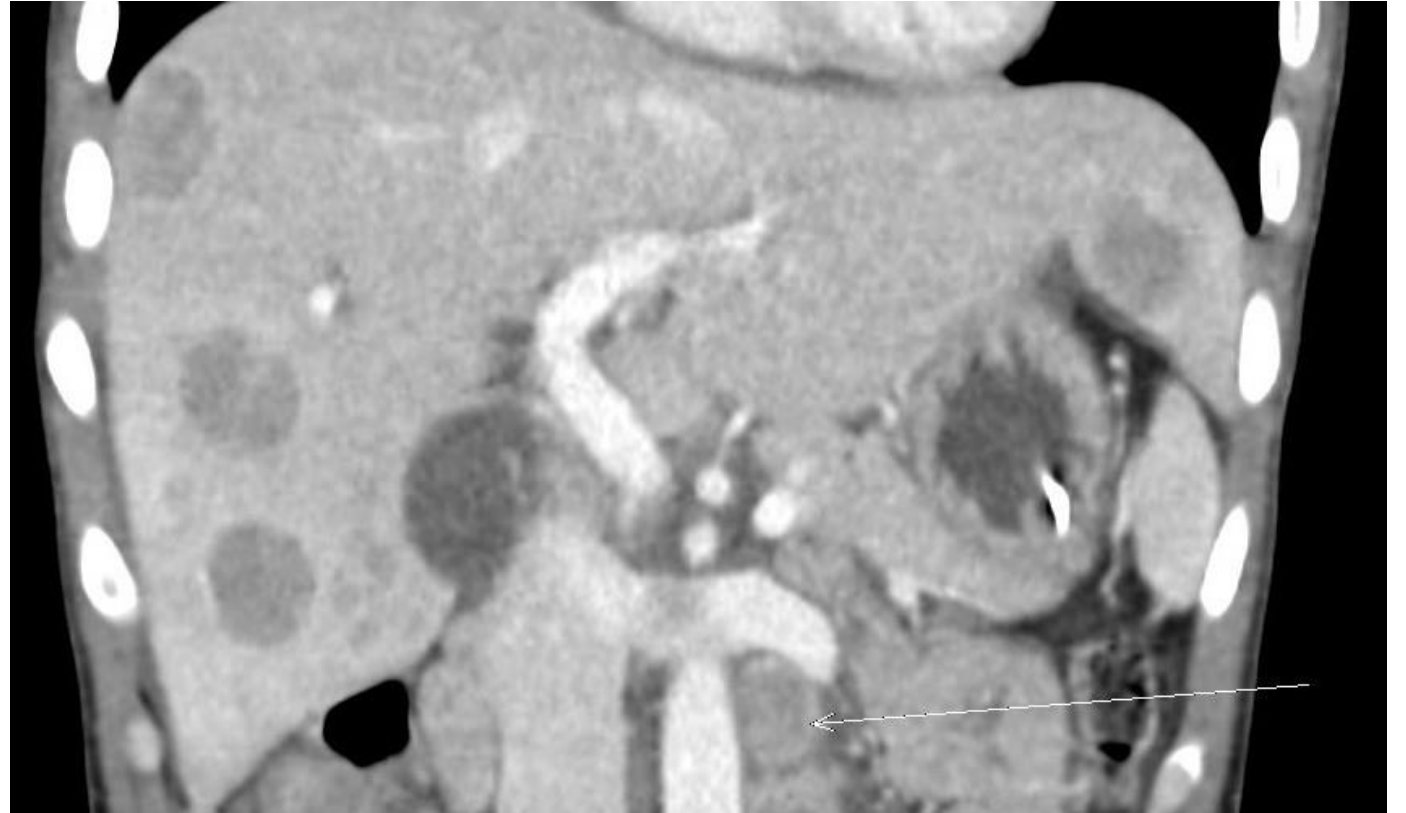
Pleural  
deposit

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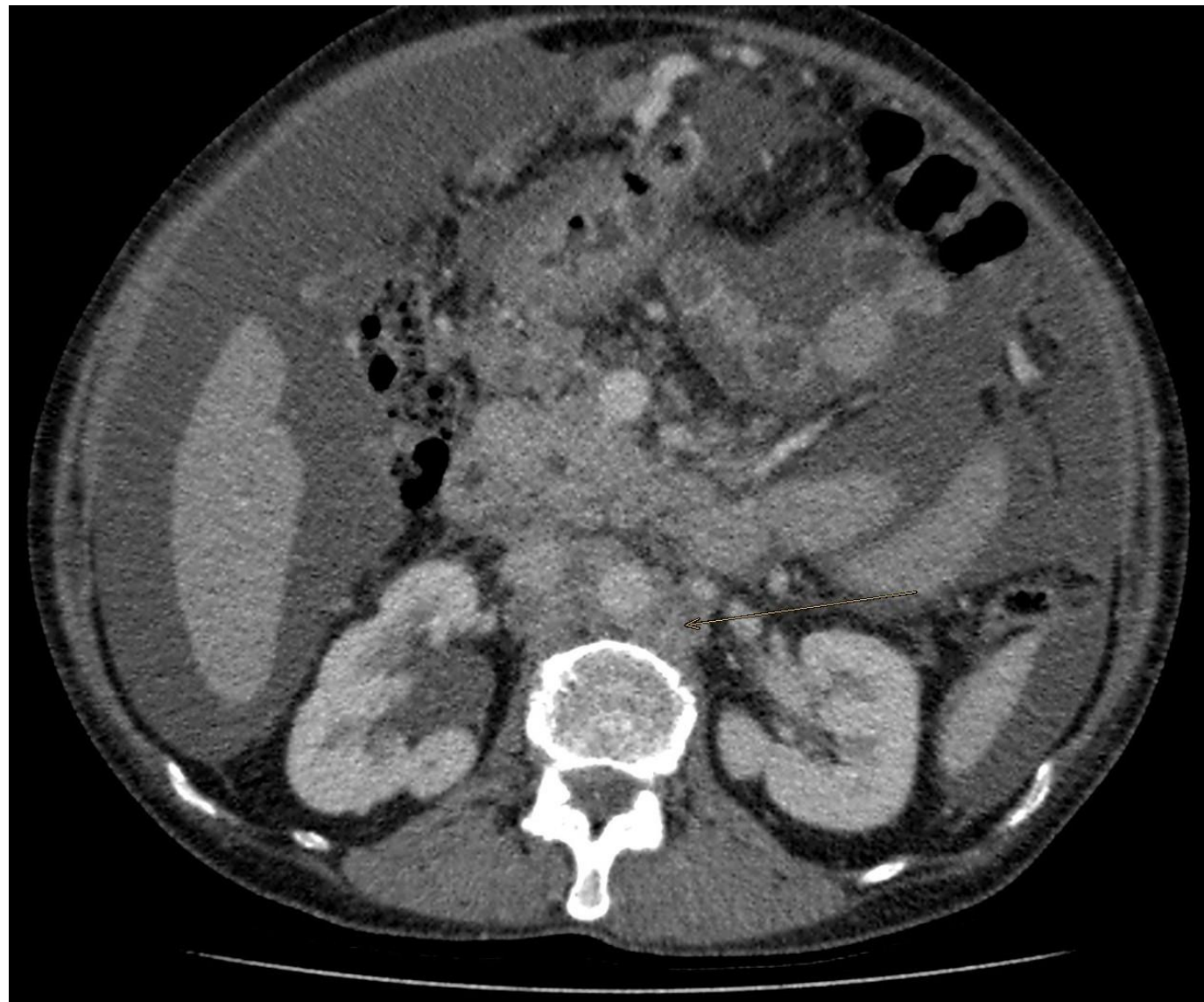
Multi  
segmental  
Liver  
metastasis

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# Retrocaval nodes

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Left SCF  
nodes

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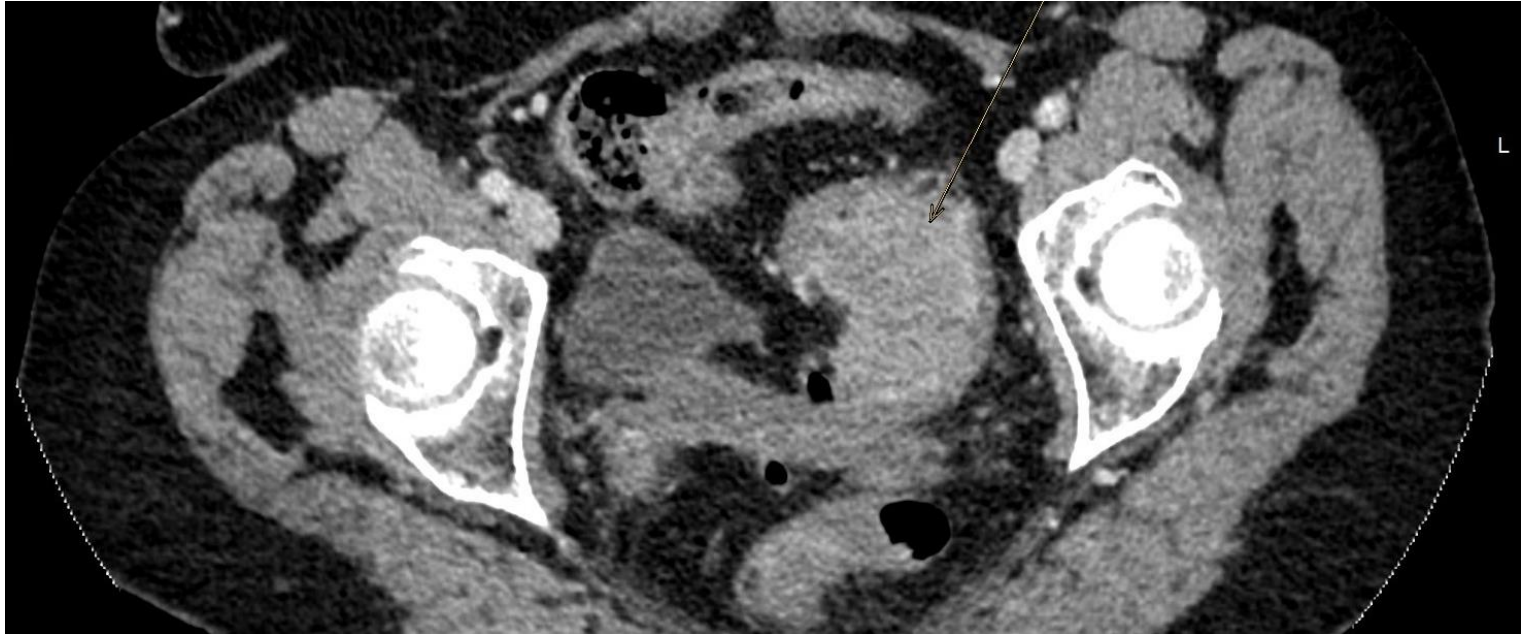


Colonic  
Serosal/  
Luminal

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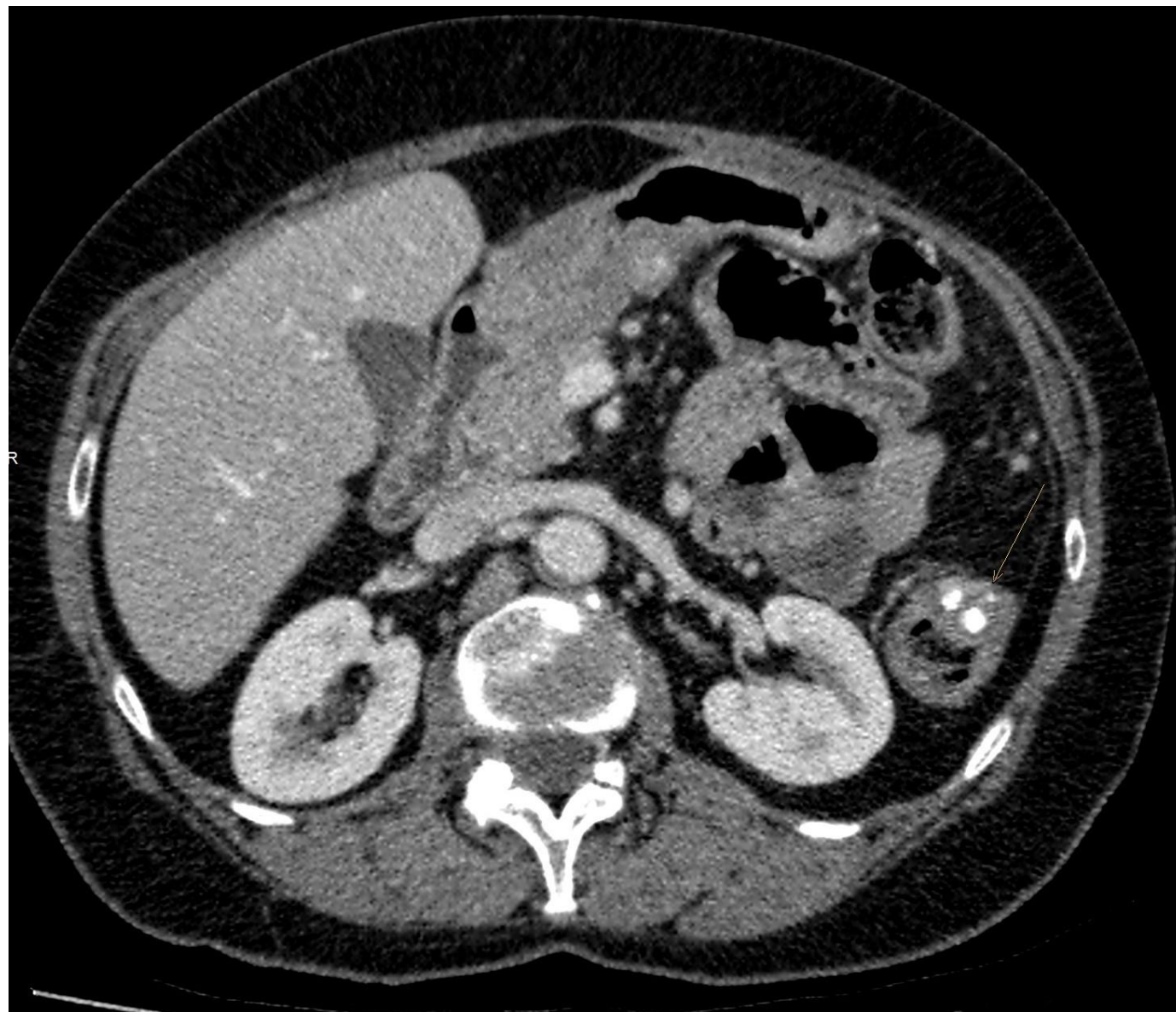


Sigmoid serosal

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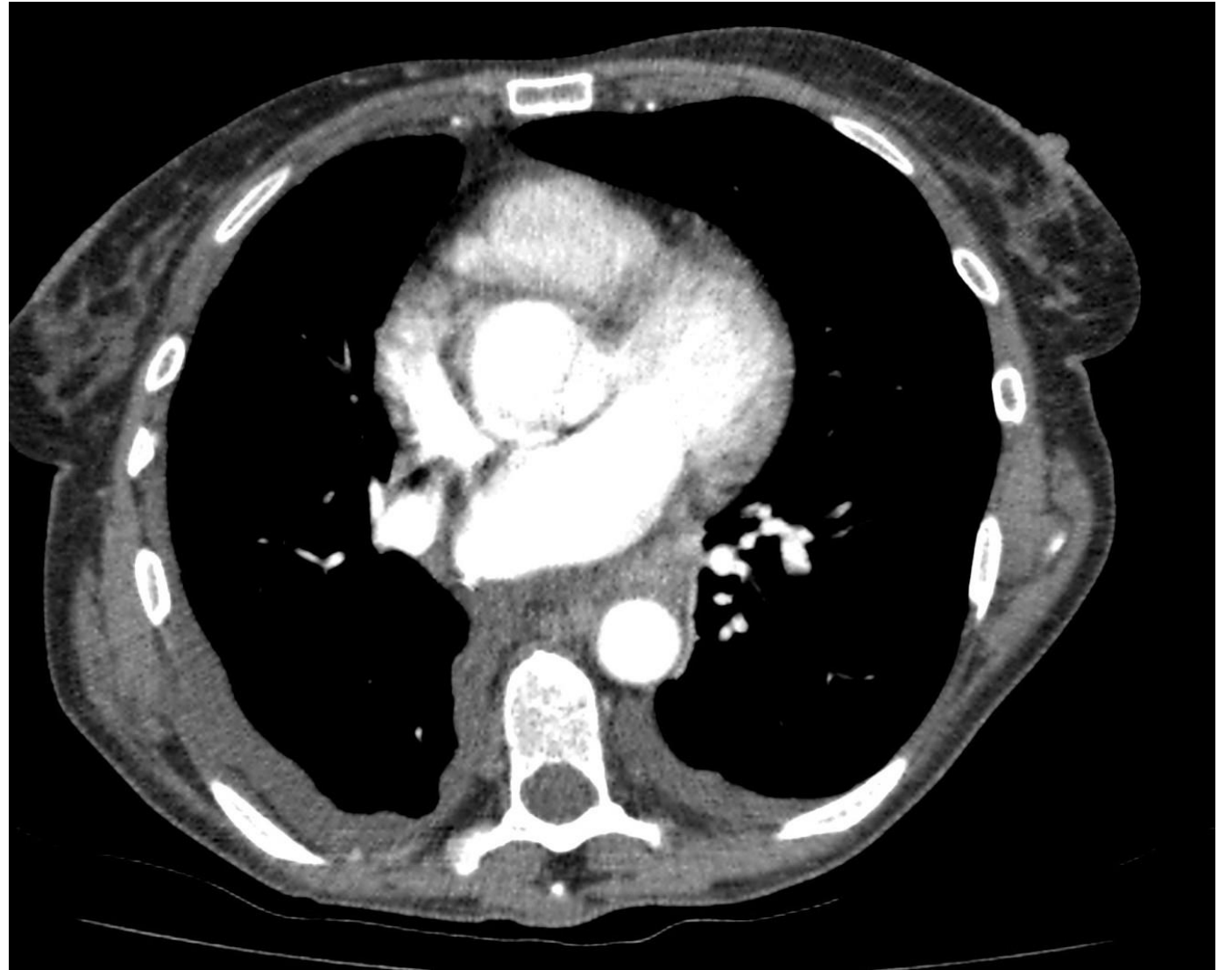
# Descending colon serosal deposits

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# Posterior mediastinal disease

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Post neo  
adjuvant  
chemotherapy

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Anatomical relationships change

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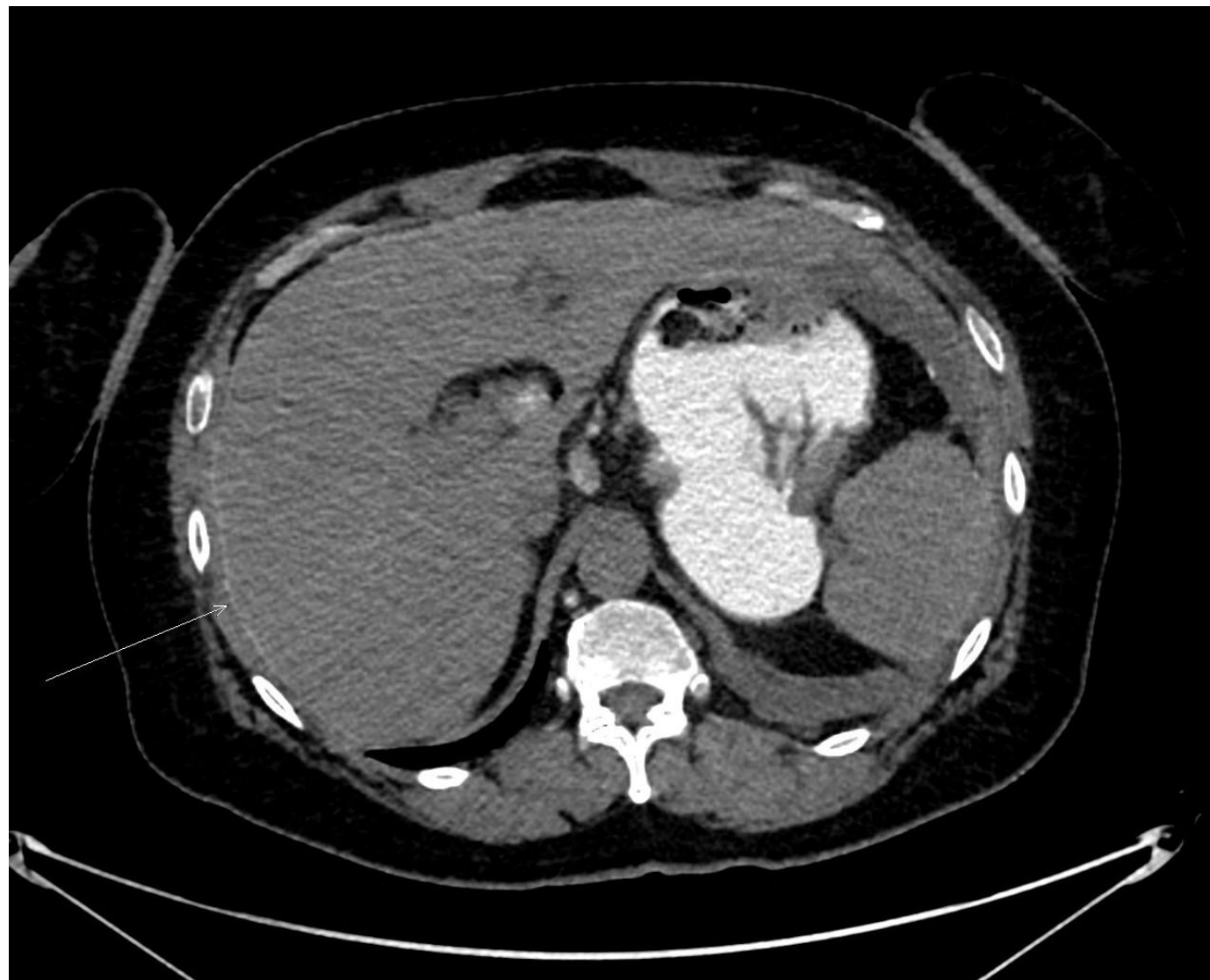
Mesenteric fibrosis

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Thickening of fascial planes

Calcified  
surface  
deposits

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# Mesenteric tethering

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# Bowel adherence

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# Summary

Imaging plays a vital role in the assessment of ovarian cancer and ongoing management

Working together with surgeons and oncologists in the MDT