

**Autopsy report**  
**Patient N, 76 years**

# SUMMARY OF CLINICAL HISTORY:

- Patient N, 67 years old, suffered from ovarian cancer.
- She underwent bilateral laparoscopic adnexectomy.
- Microscopic and IHC examination : undifferentiated endometrioid carcinoma, CEA 4 +, HER2neu-negative
- Received polychemotherapy since July 2020.
- In September her condition significantly deteriorated.
- Was hospitalized
- Was diagnosed with carcinomatosis of the peritoneum. Ascites. Metastasis in S 10 of the right lung.

## EXTERNAL EXAMINATION:

- The body of 77 year old women, well developed, well nourished.
- Skin: pale gray
- On the anterior surface of the chest and lower third of the lower limbs - multiple petechial hemorrhages
- In the projection of the thyroid cartilage there is an old scar 4 cm long, corresponding to the scar after hemithyroidectomy
- In the epigastric, umbilical and left hypochondriac regions there are scars up to 2 cm in diameter, corresponding to the laparoscopy
- cadaveric spots situated on the back of the body, pale purple, turn pale when pressure

# **INTERNAL EXAMINATION**

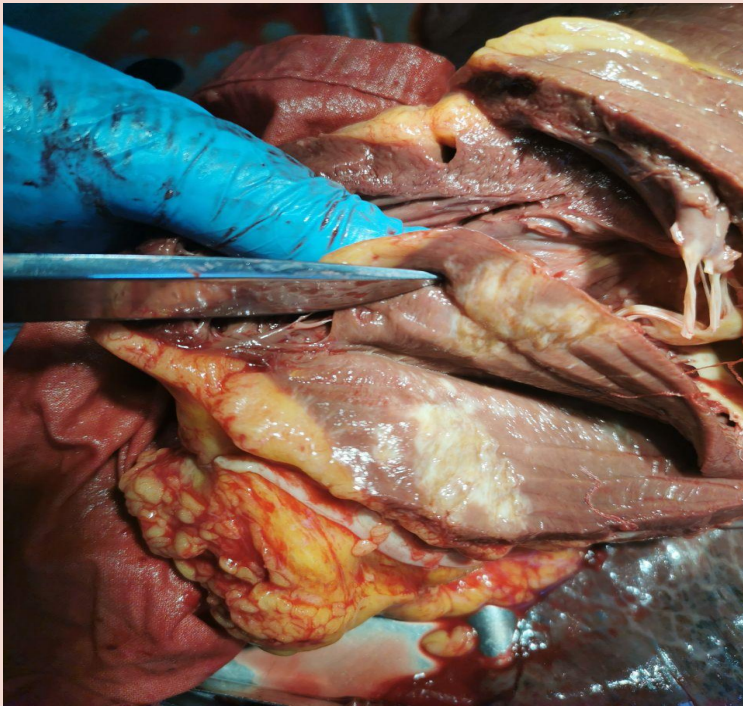


# Heart

- Size – 11x9x5 cm
- Weight– 336 g
- Wall thickness of the left ventricle 1.5 cm, right 0.3 cm.
- Epicardium and pericardium are smooth, shiny, with moderate adipose tissue deposition
- Heart valves are smooth, shiny, perimeter within normal limits
- Myocardium is pale brown, foci of uneven blood supply. In the lateral wall of the left ventricle, a focus of irregular shape, dense, whitish colour, size -4x3x1 cm

# Heart

- Heart valves cusps are thin, translucent coronary arteries with whitish-yellow spots and stripes, as well as single smooth whitish yellow plaques, stenosing the lumen of the proximal parts of both coronary arteries by 25.
- There is a stent in the right coronary artery.



# Peritoneum

- Visceral and parietal sheets of the peritoneum are dull, moist
- On the surface there are multiple grey thread-like overlays.
- Multiple nodules , gray-black on section, which have solid consistency with a diameter of 0.3 to 1.5 cm in the parietal and visceral sheets, merging in places into conglomerates up to 4 cm



# Lungs

- In the right pleural cavity - 200 ml, in the left - 700 ml of a clear yellowish liquid
- The mucosa of the trachea and bronchi is pale pink
- The airiness is increased in the upper lobes, with pressure, folds that do not expand for a long time remain
- Pleura: thin, smooth, shiny, translucent
- The lung tissue on the section is red, a large amount of foaming pinkish fluid flows from the cut, there are extensive hemorrhages in the lower lobes of the right and left lungs, mainly subpleurally.



# Lungs

- Bronchi: protrude above the cut surface, their walls are thickened, dense, whitish
- Hilar and paratracheal lymph nodes are gray-black on the cut surface, the maximum size of is 2x1x1 cm.



# Large vessels

- Aorta: intima of the thoracic and abdominal region with yellow plaques, fibrous plaques, up to 0.5 cm .
- Pulmonary arteries: intima is smooth, ivory colour.
- Large veins: liquid blood in the lumen



# Gastrointestinal tract

- Esophagus: mucosa is gray, with longitudinal foldings
- Veins of the lower third are not dilated
- Stomach: mucosa is pale gray, with foldings, in the lumen there is a small amount of digested food
- Small intestine: the loop of the small intestine in the upper third of the purple color, the intestinal wall, edematous, flabby consistency, the zone of demarcation inflammation is not clearly expressed. Section revealed a thrombus in the lumen of the branch of the superior mesenteric artery. rest of the mucous membrane is gray, smoothed, in the lumen there are liquid yellowish-brown masses.
- Colon: the mucous membrane is pale gray, folded, the lumen is filled with faeces.



# Small intestine





# Small intestine



# Gastrointestinal tract

- Liver. Size - 23x17x12x6 cm.  
Weight - 1045 g.
- Cut section shows alternating red areas representing congested and dilated hepatic vein and paler areas of fatty change giving the appearance of Nutmeg kernel. There are white, single, rounded inclusions with a maximum diameter of 0.5 cm
- Pancreas. Size - 13x4x2 cm, elastic consistency, in the cut - gray-pink, lobed structure



# Brain

- Size – 17x16x7 cm, weight – 1067 g.
- Consistence: soft, flabby
- The major vessels at the base of the brain have a usual anatomic distribution and there is no atherosclerosis.
- The border between gray and white matter is preserved
- The ventricles are not dilated, contain a transparent cerebrospinal fluid.

# Kidneys

- Size: left kidney - 10,5x5x3 cm, right kidney – 9,5x4x3 cm
- Weight: left kidney - 100 g, right - 140 g
- On the cross sectioning have dense consistency, a smooth surface



# Kidneys

- Dark, full-blooded pyramids, pale gray cortical substance.
- Hemorrhage in the renal fascia on the right. In the right kidney there is a cyst with a diameter of 1 cm, with thin walls, filled with transparent liquid.
- The mucous membrane of the renal pelvis is gray, smooth, dull, with vascular injection



# Organs of the urogenital system

- Bladder. The mucous membrane is grey, has foldings.
- Uterus - 7x3x2cm, grey, has firm consistency, with is a cyst d=0.7 cm in the mucous membrane .
- And a neoplasm, which has grey colour and a thick pedicle, size - 1x0.5x0.5 cm
- Fallopian tubes and ovaries : are resected

# Splin

- Size - 11x8x3 cm
- Weight - 112 gWith a smooth capsule
- Flabby consistency
- Dark cherry colour on section
- The character of pulp scraping is insignificant

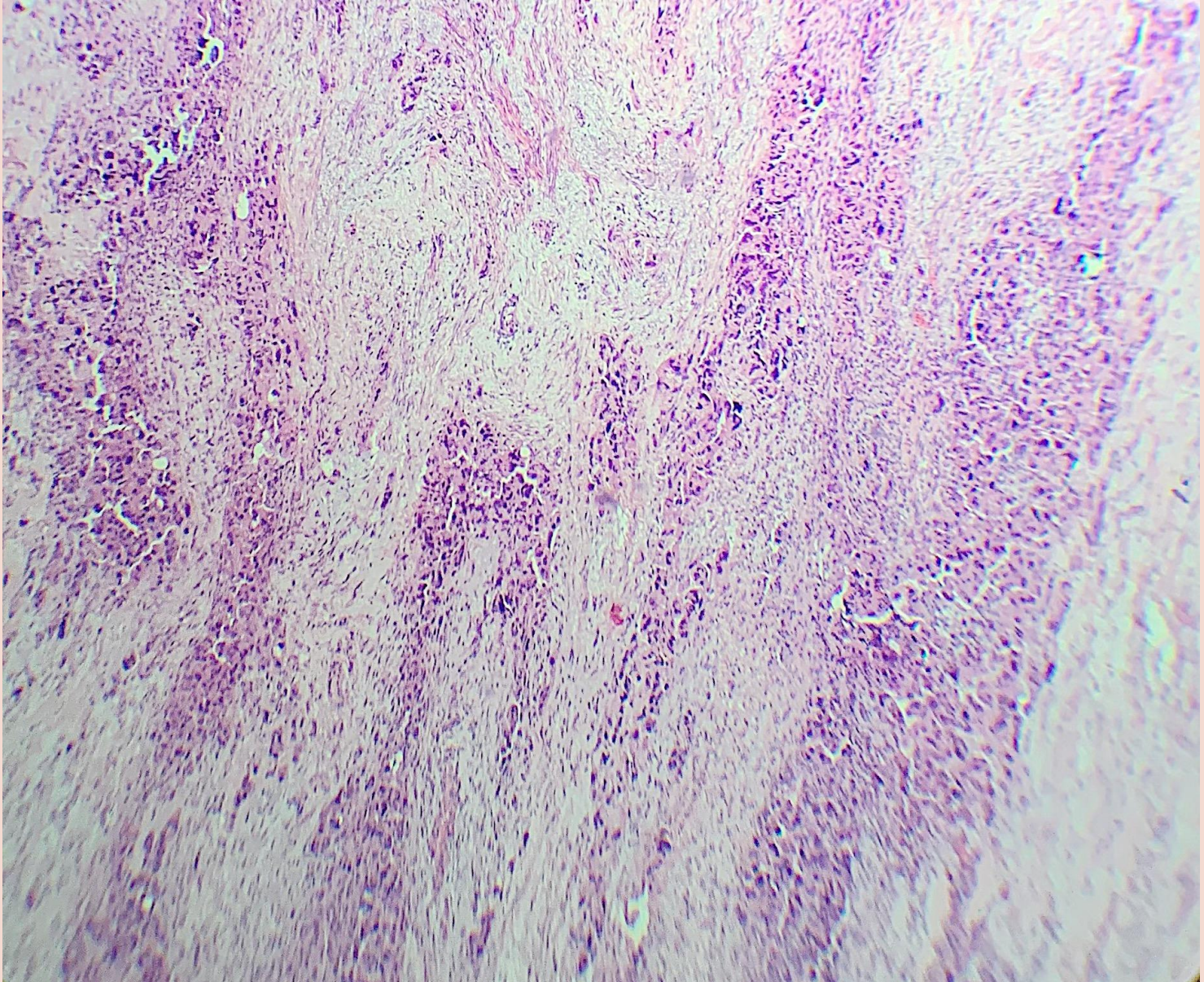
## **Endocrine system**

- Thyroid. Size: the right lobe – 1,5x1x1 cm, the left lobe – is resected, elastic consistency, the surface is smooth, brown, on the cut - fine-grained, brown.
- Adrenal glands. Leaf-shaped, the cortex is yellow, the medulla is brown.



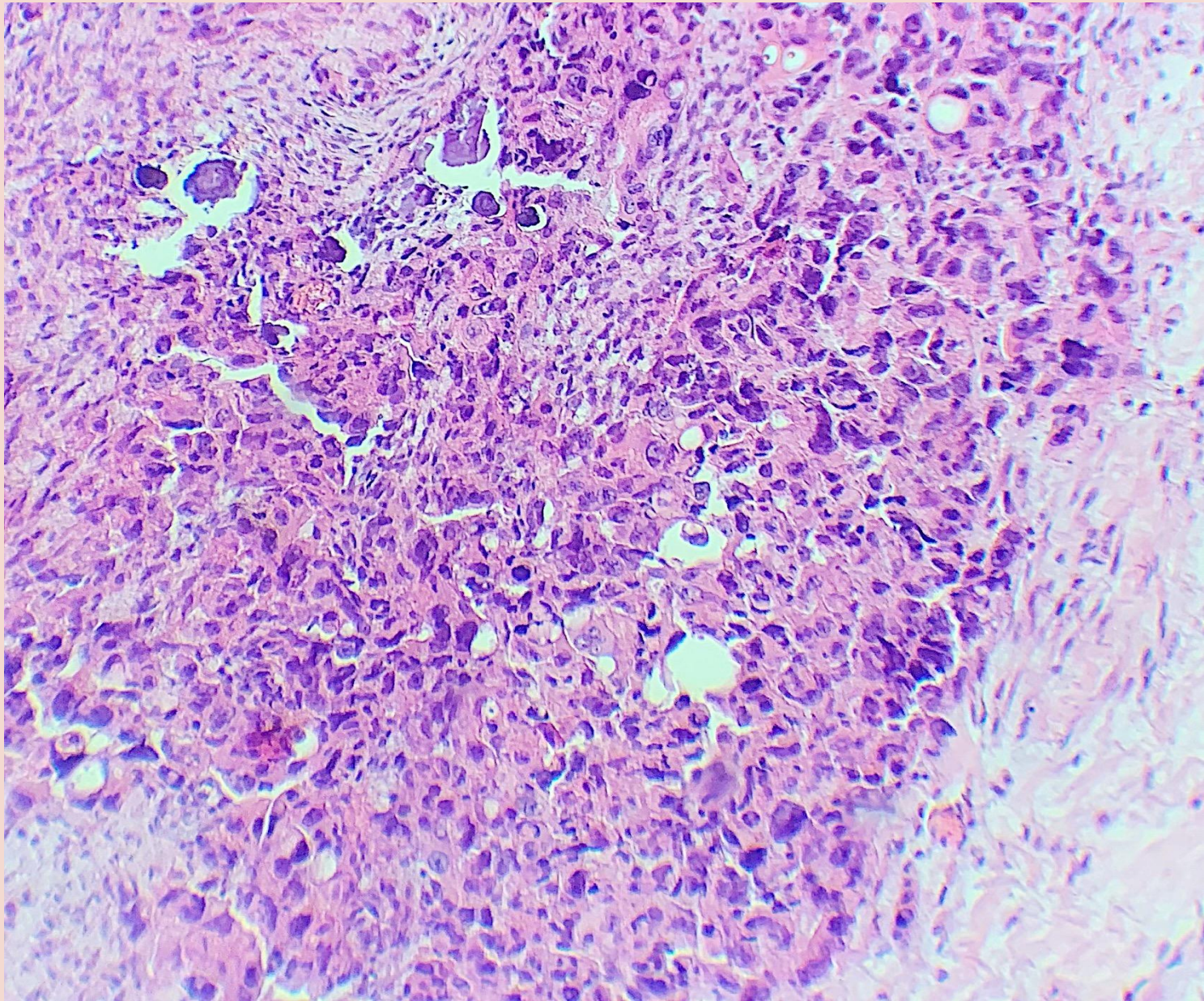
# **Microscopic examination**

Peritoneal lesions, H&E, x100



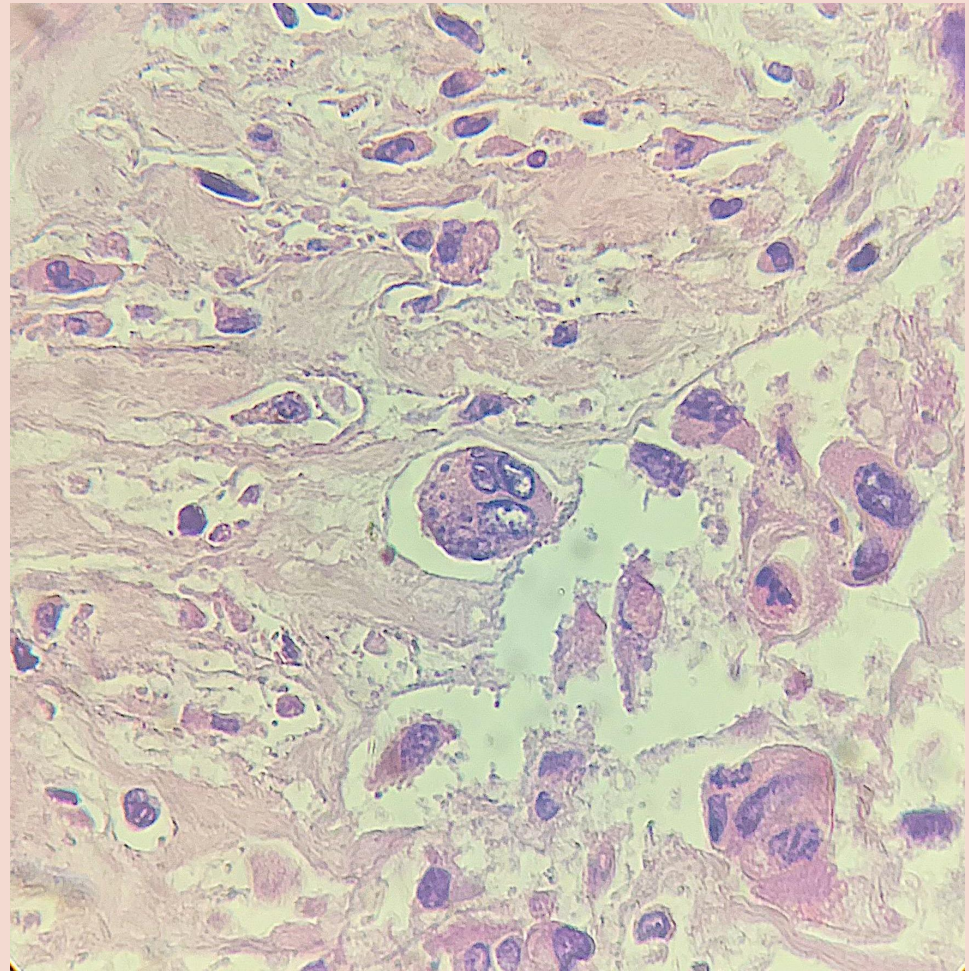
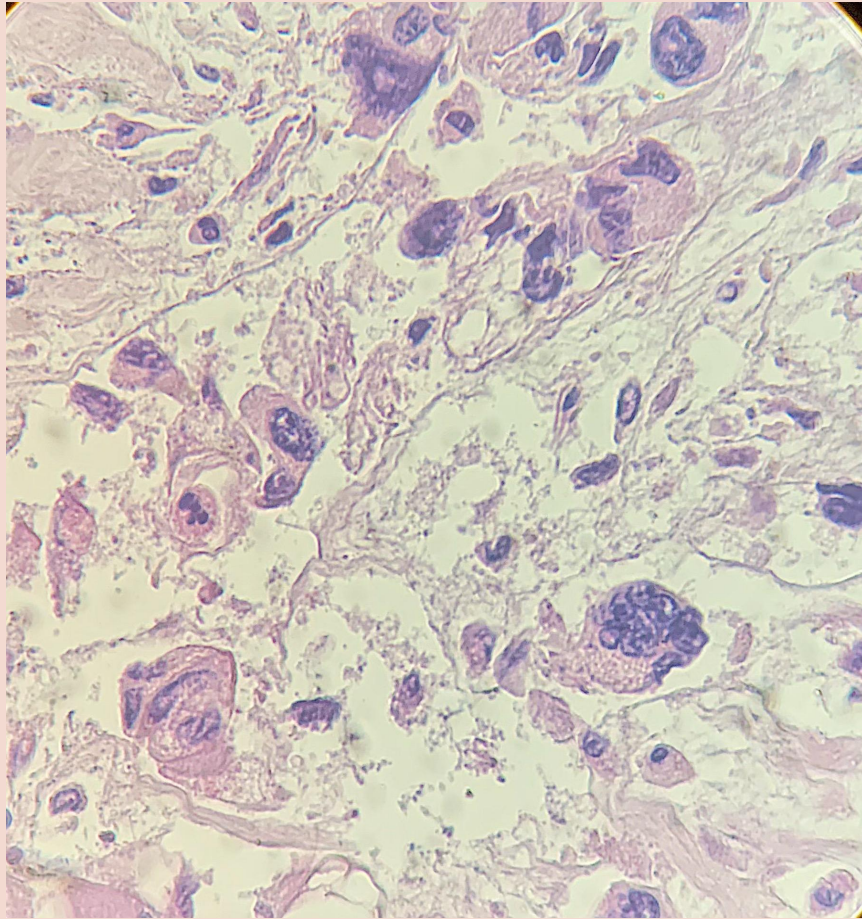


Peritoneal lesions, H&E, x200



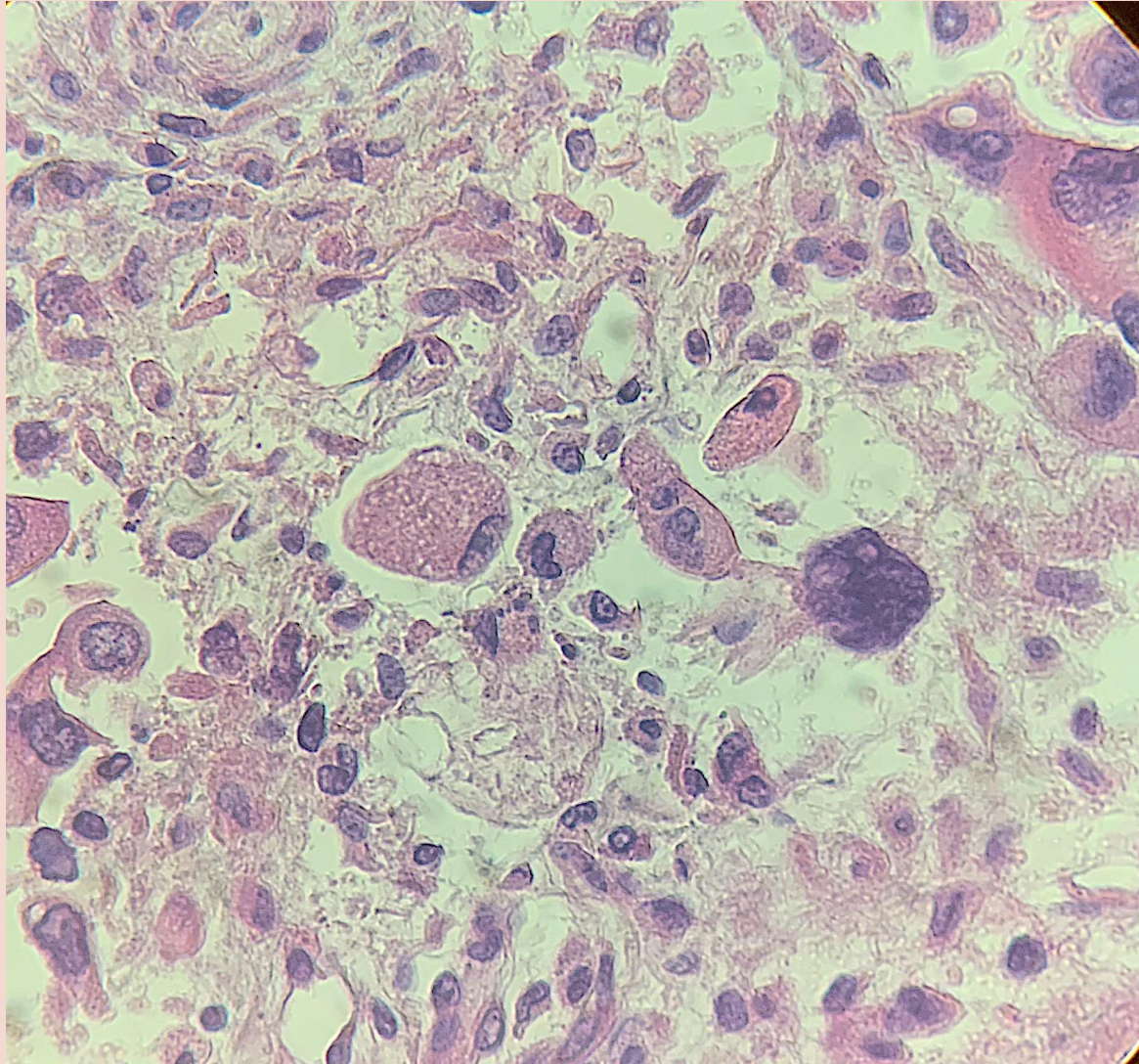


Peritoneal lesions, H&E , x00



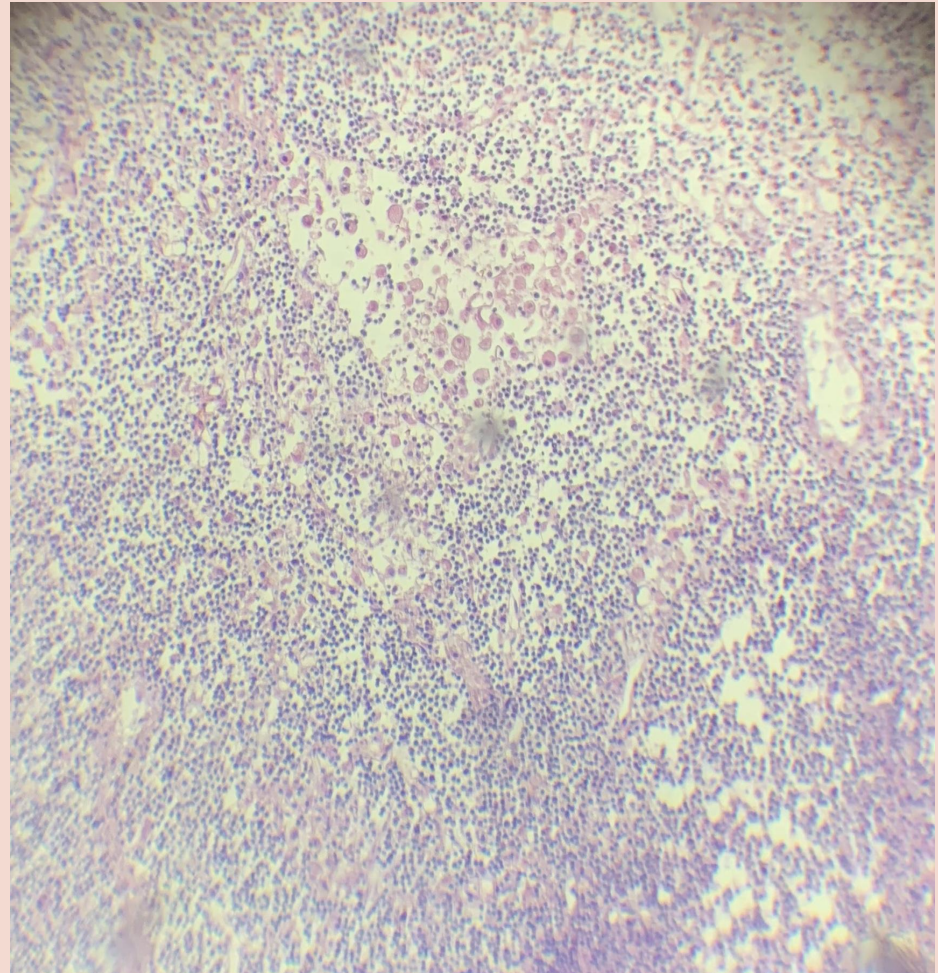
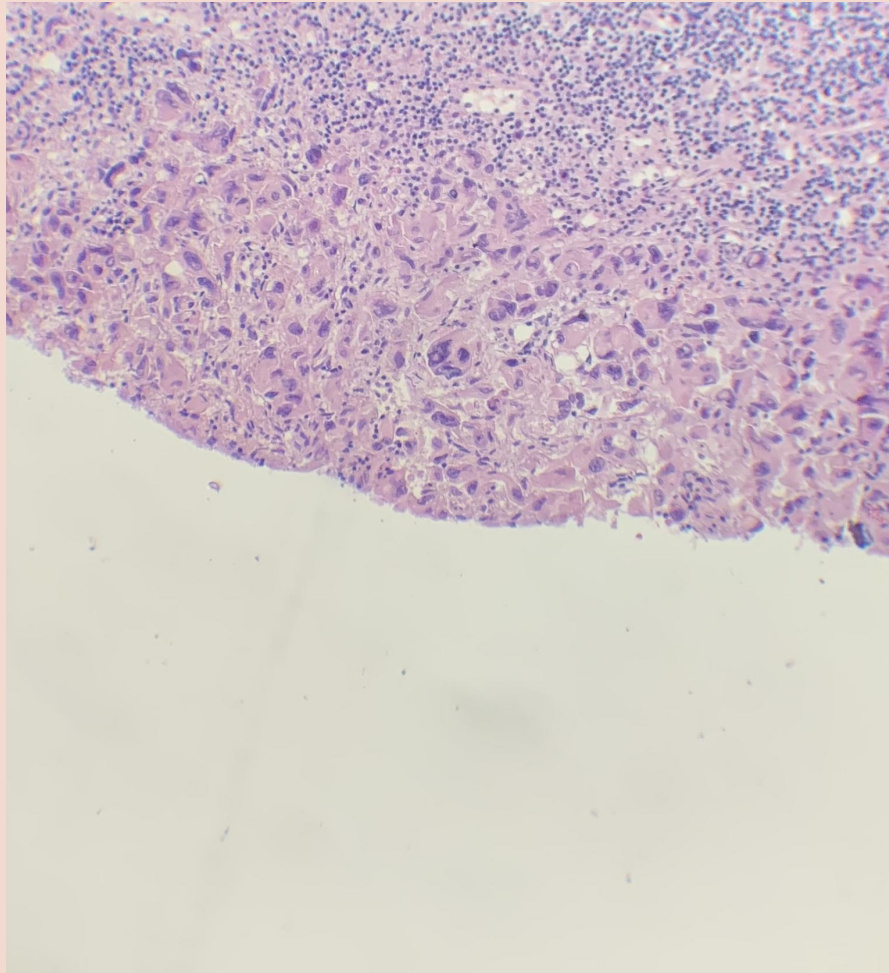


Peritoneal lesions, H&E , x400



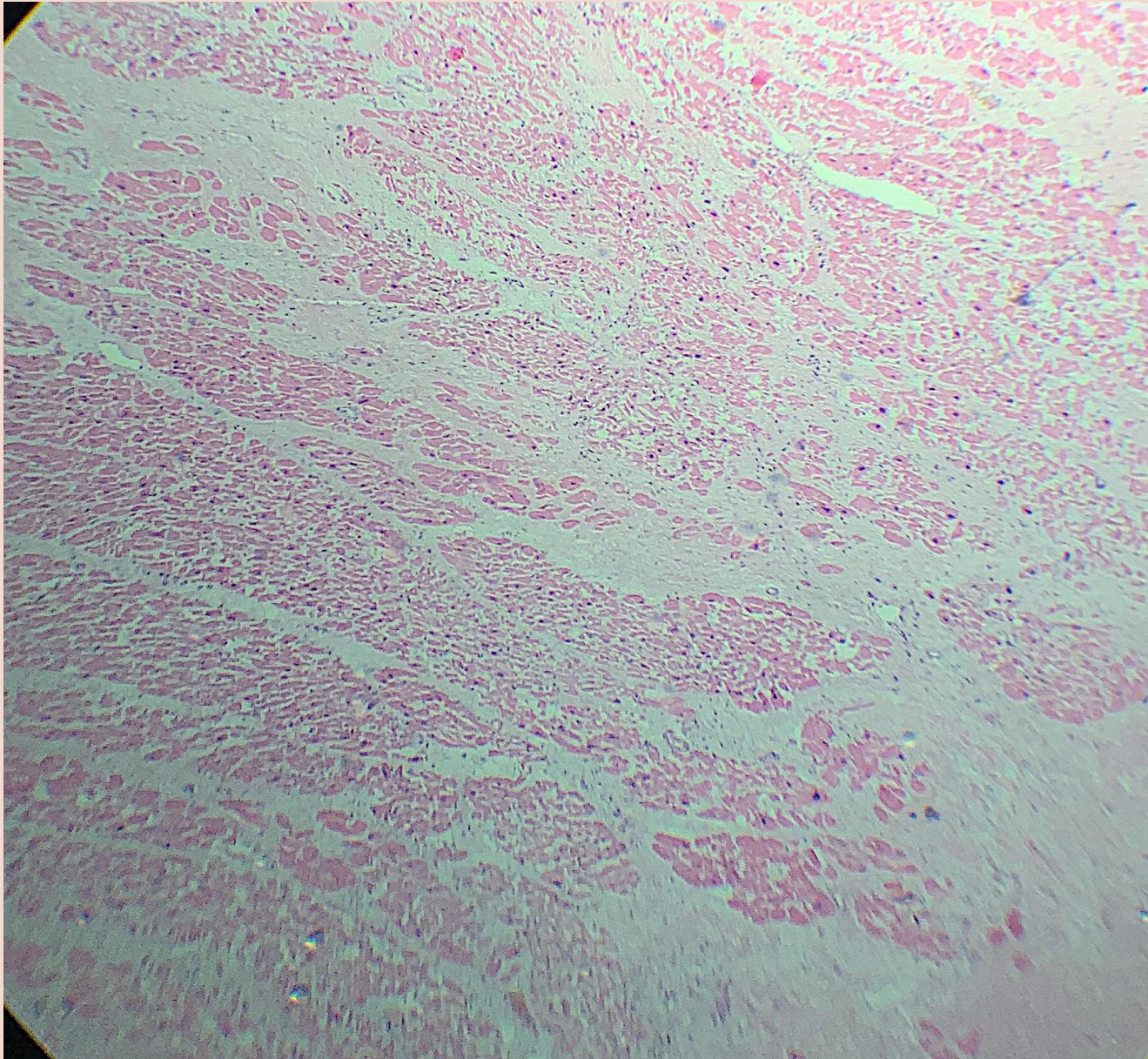


Mesenteric lymph node, H&E , x400



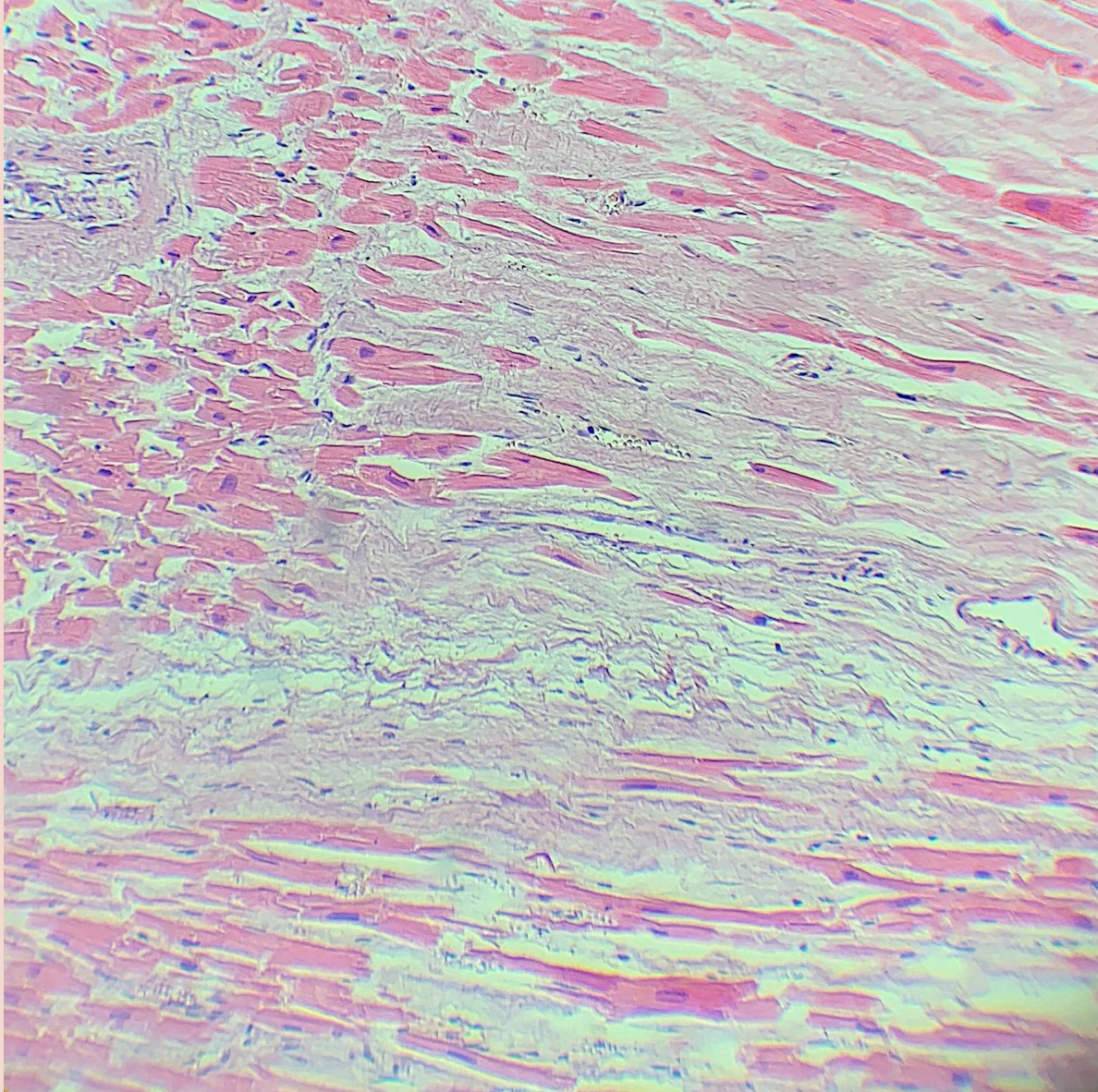


Heart, H&E, x200



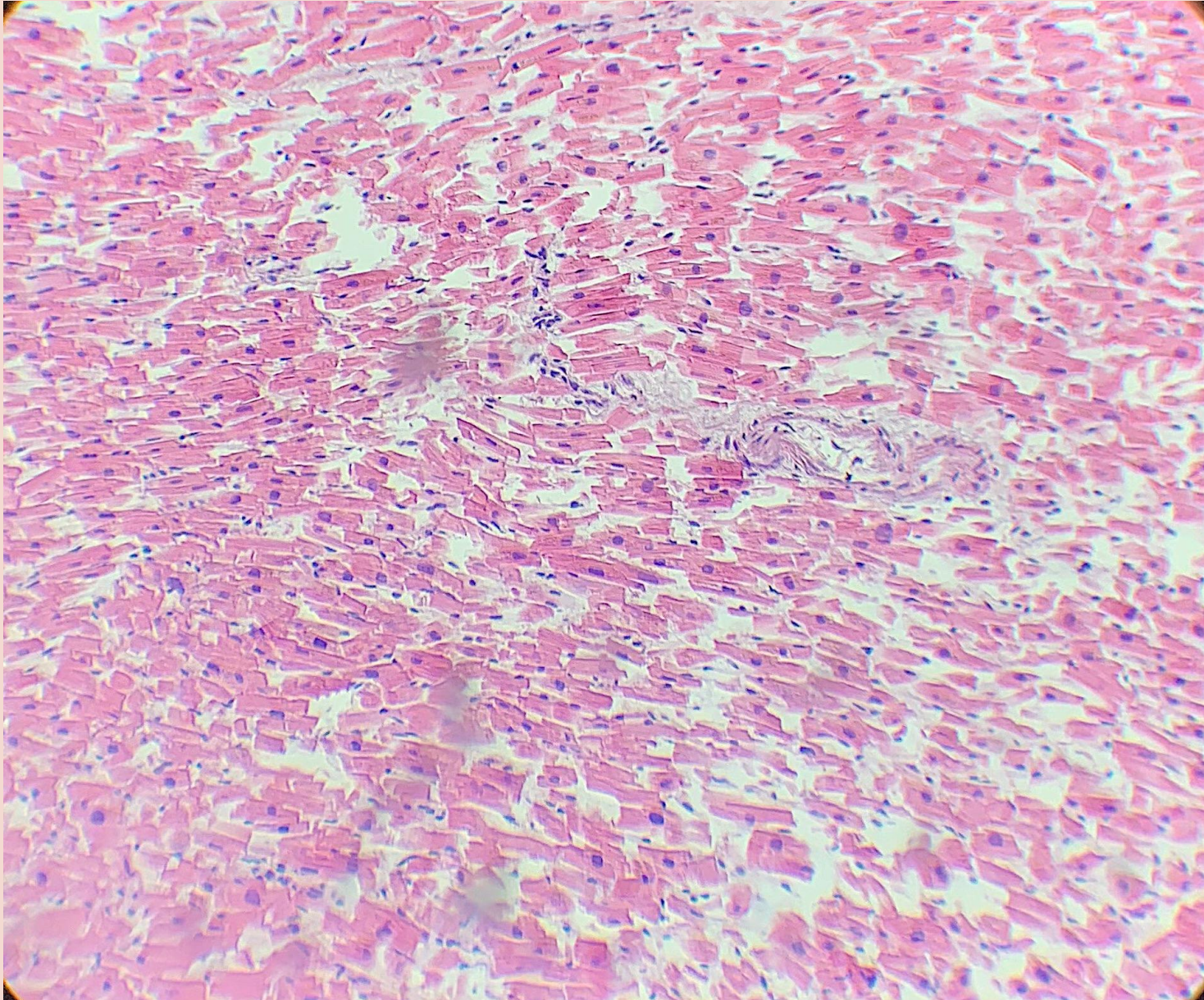


Heart, H&E, x400



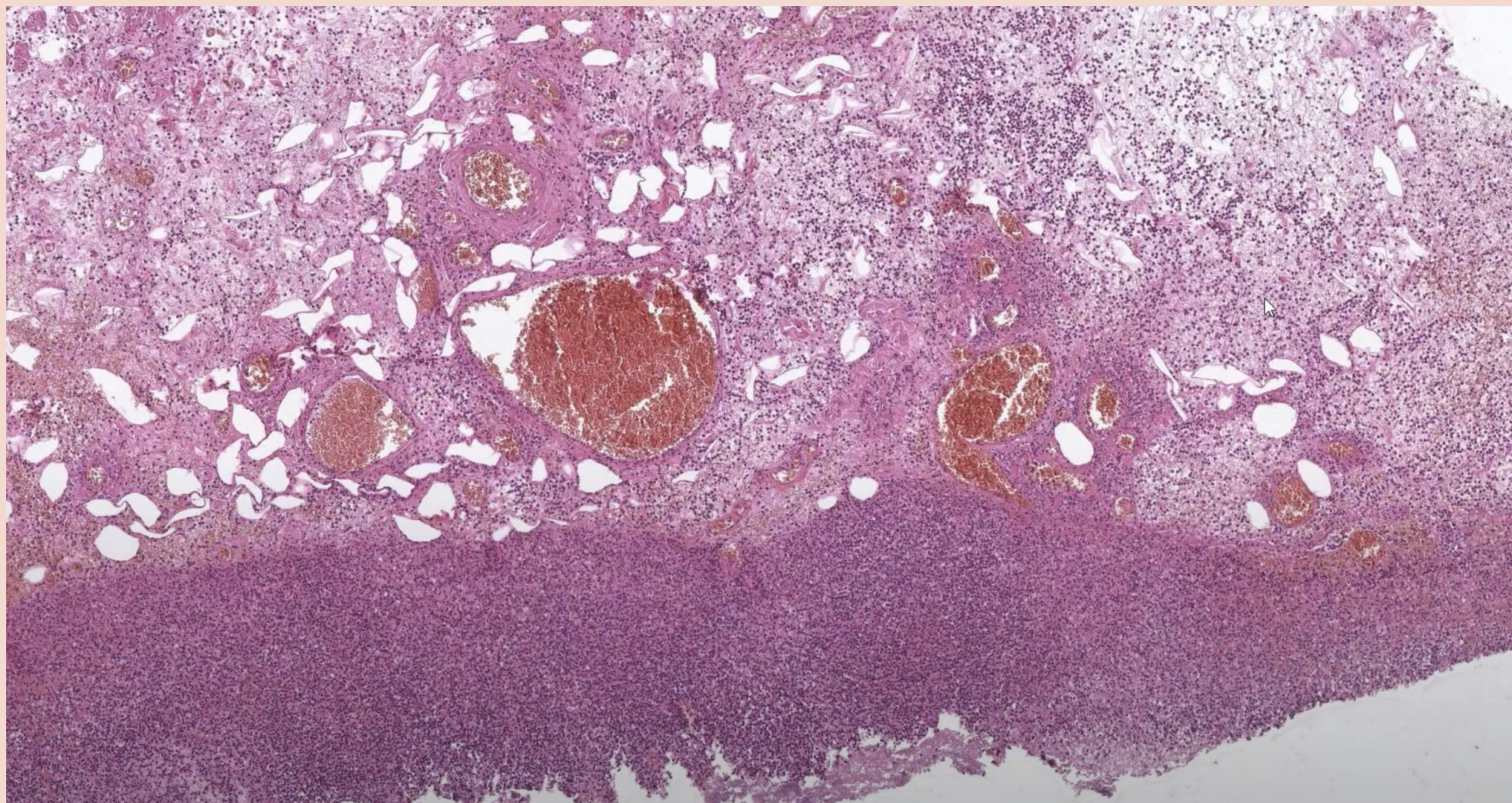


Heart, H&E, x200



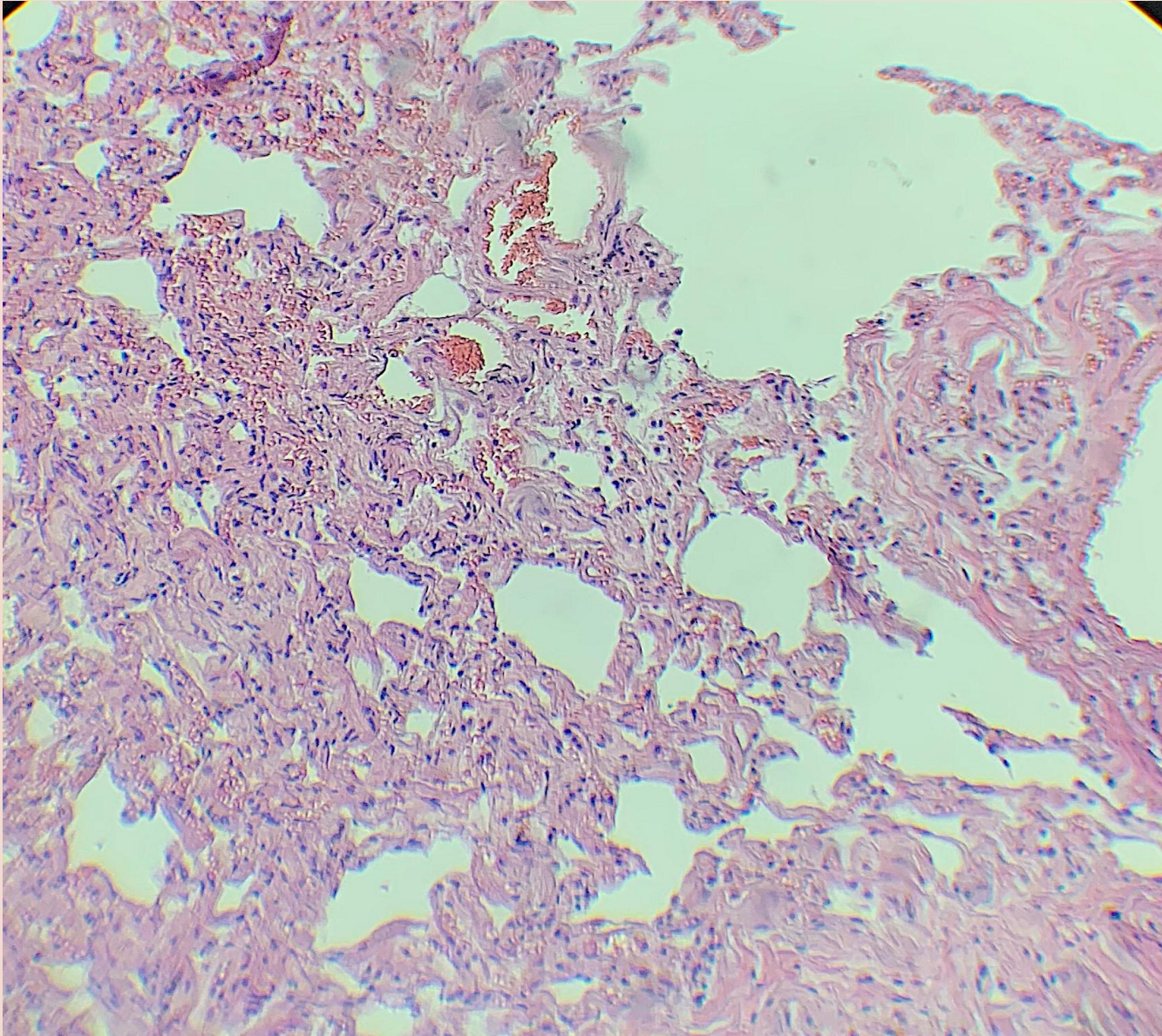


Infarction of the Intestine, H&E, x100



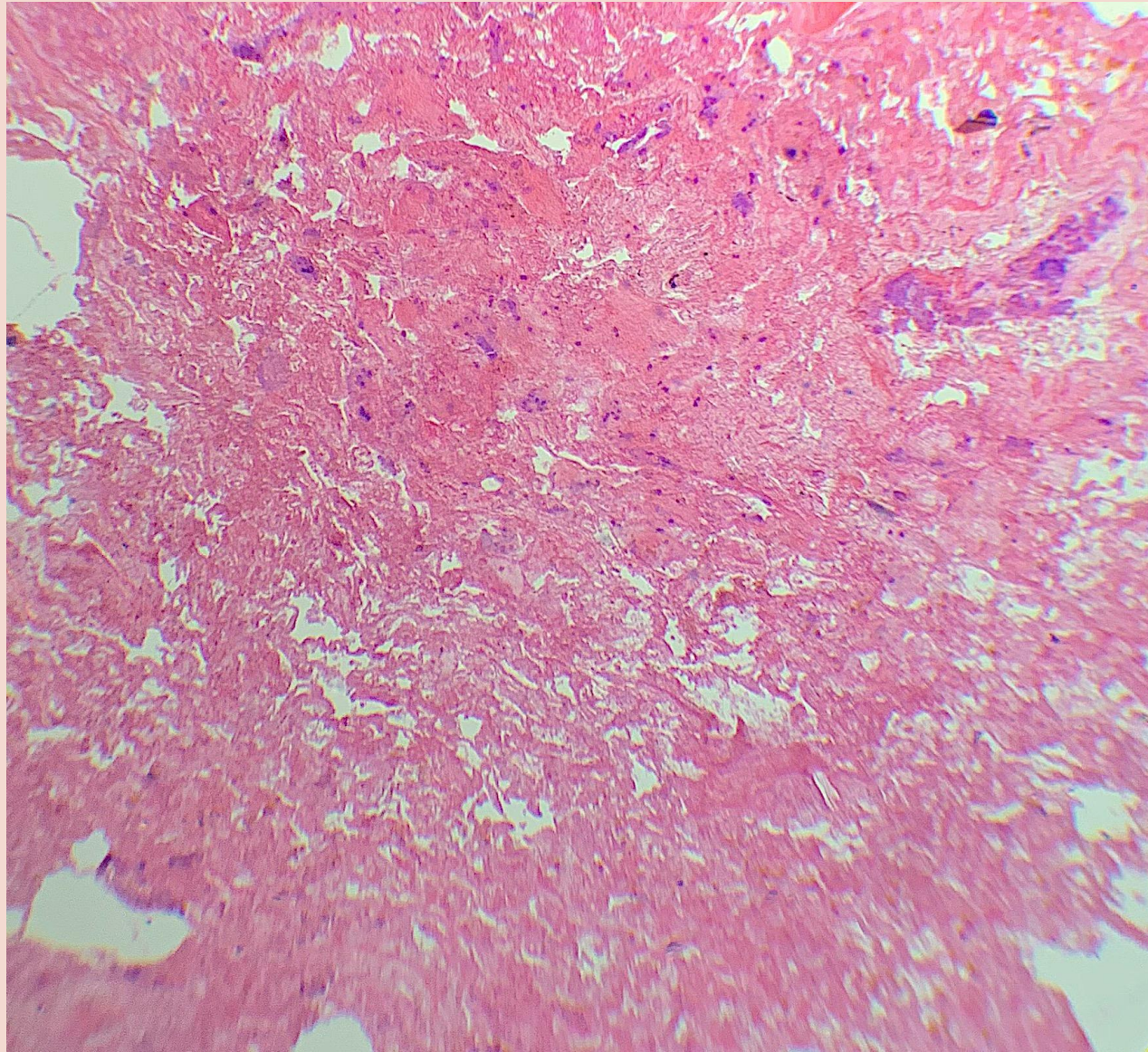


Lungs, H&E, x200



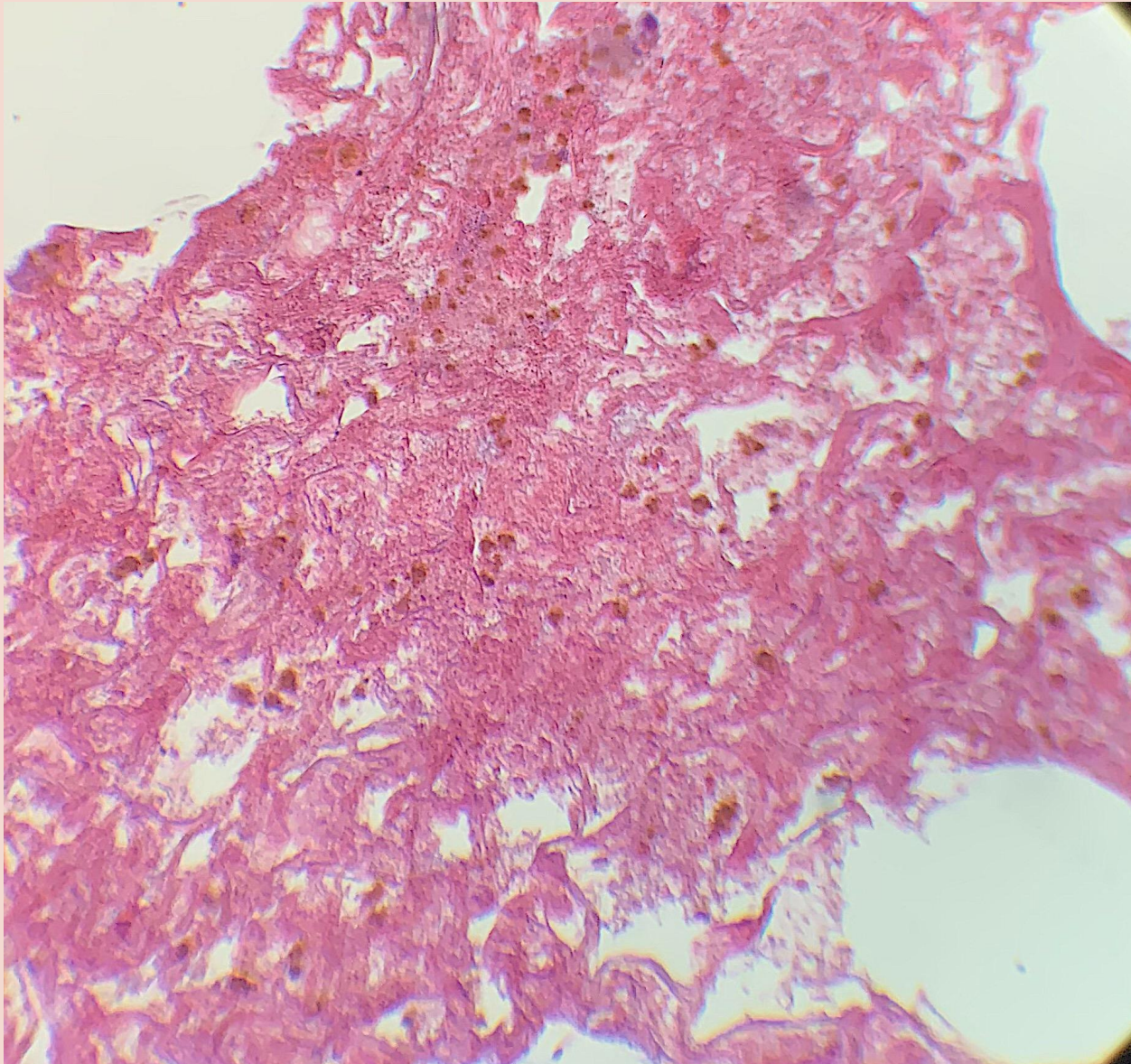


Lungs, H&E, x200



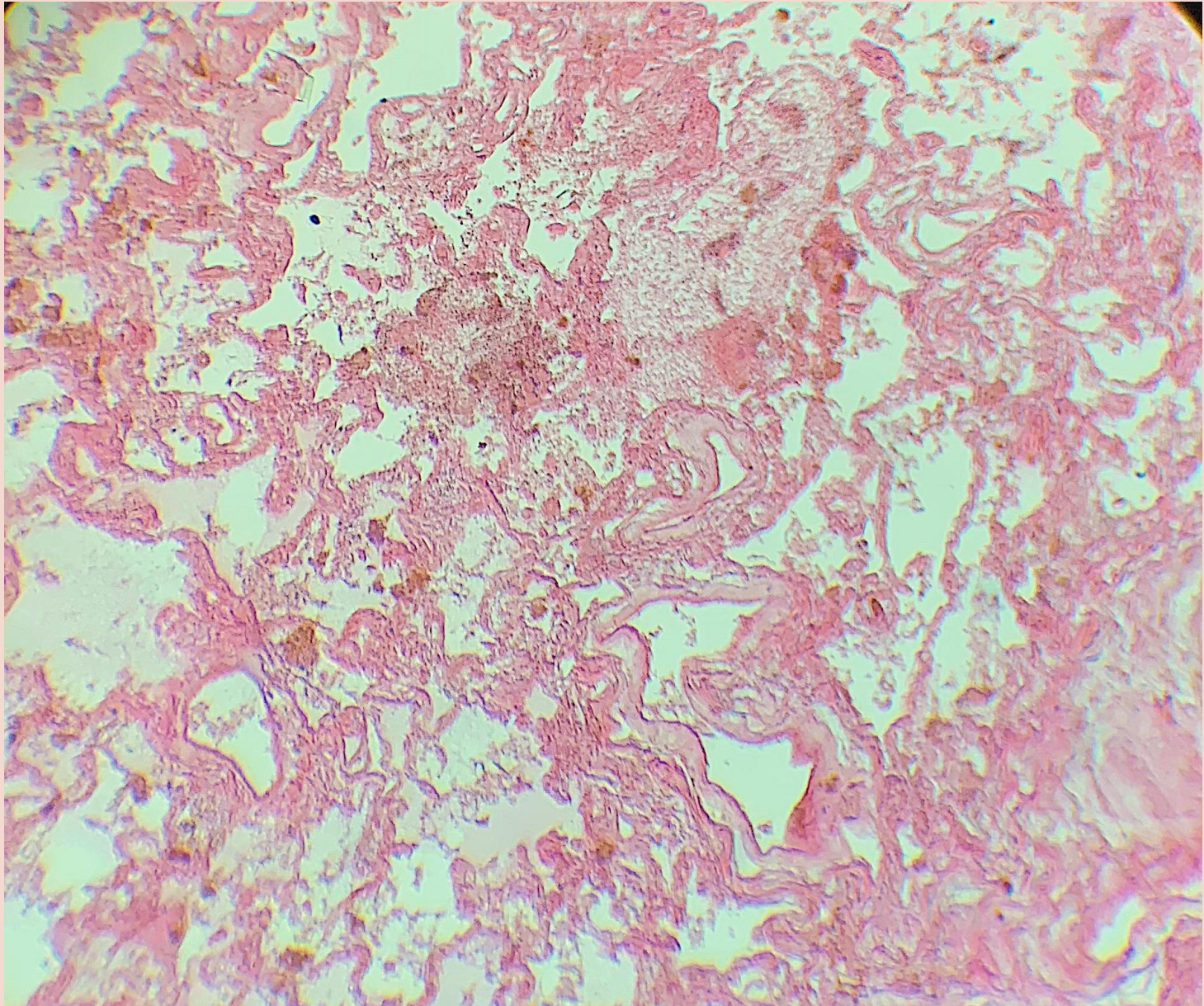


Lungs, H&E, x200



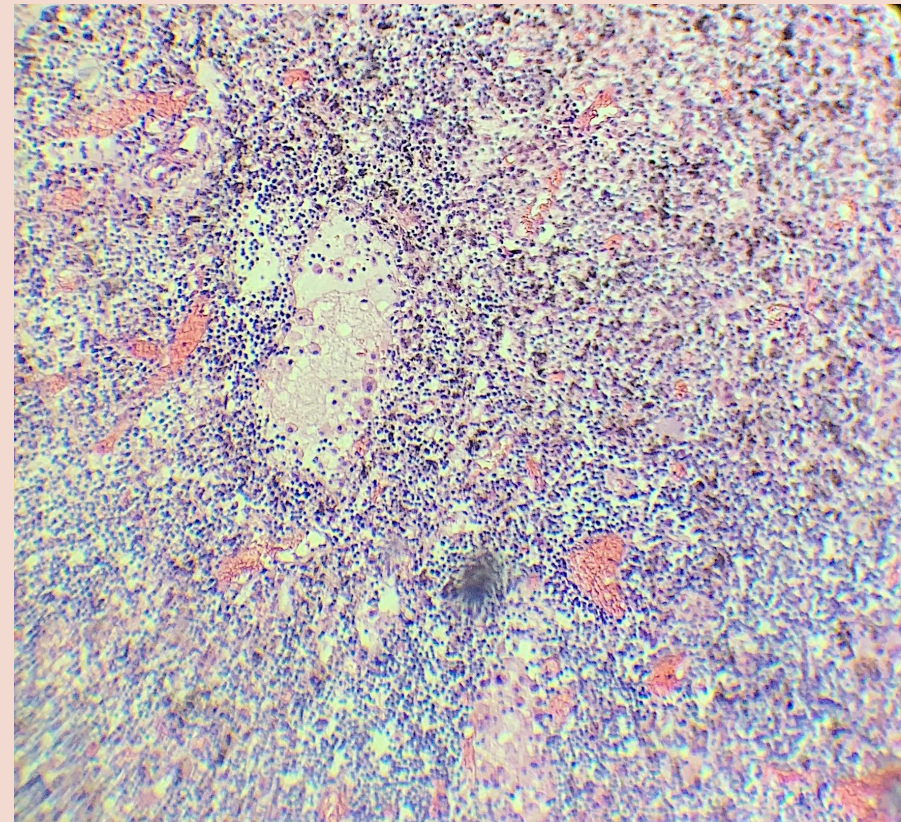
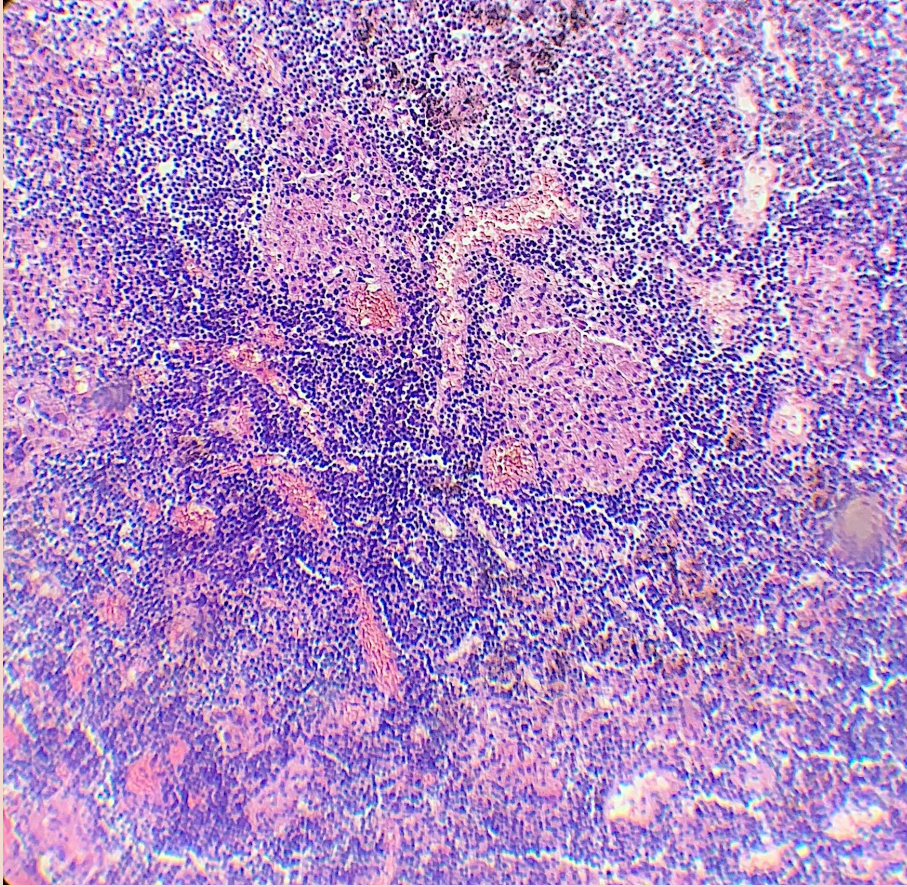


Lungs, H&E, x200



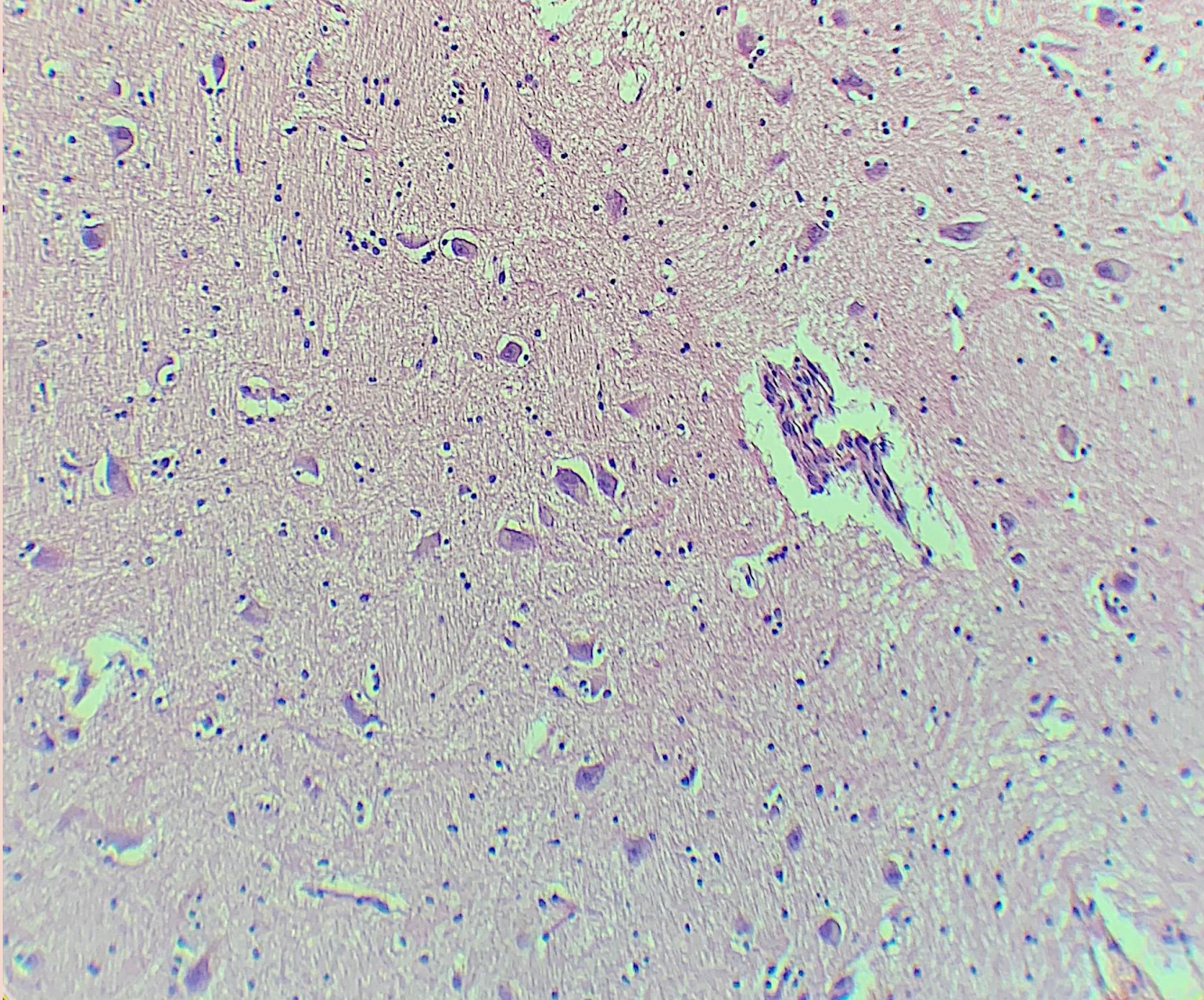


Hilar lymph node, H&E, x100



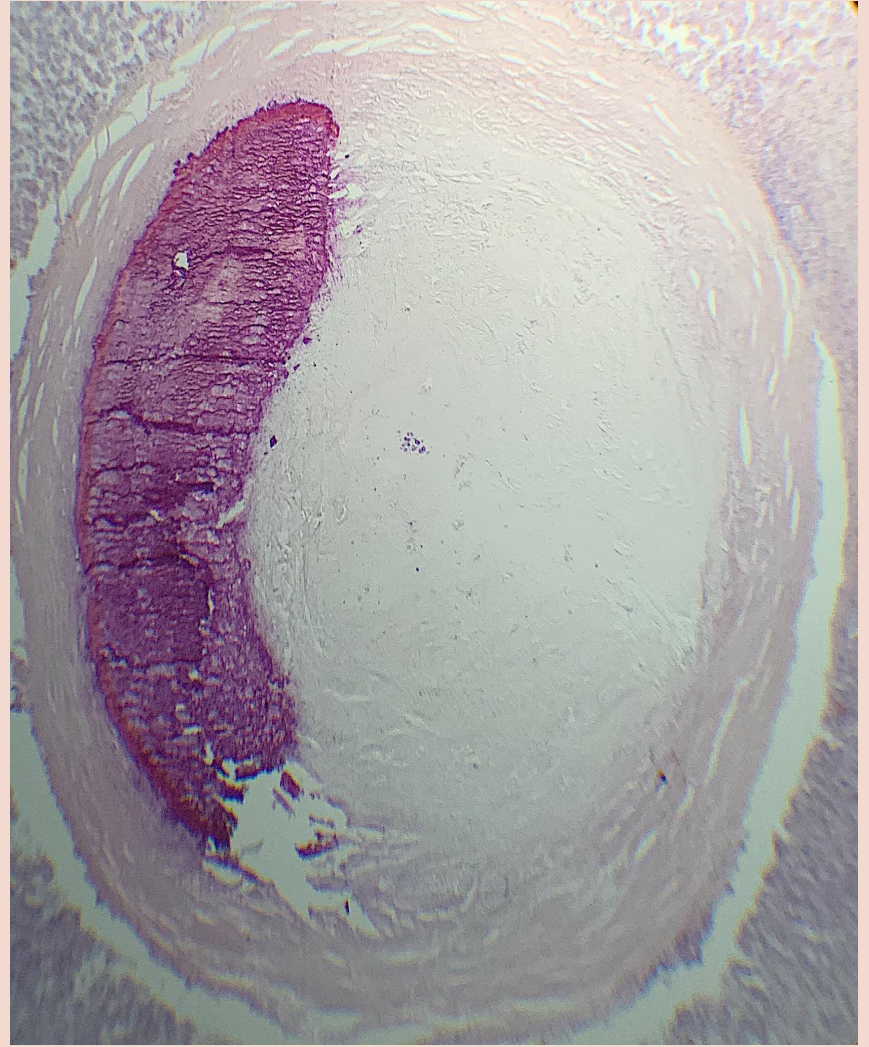
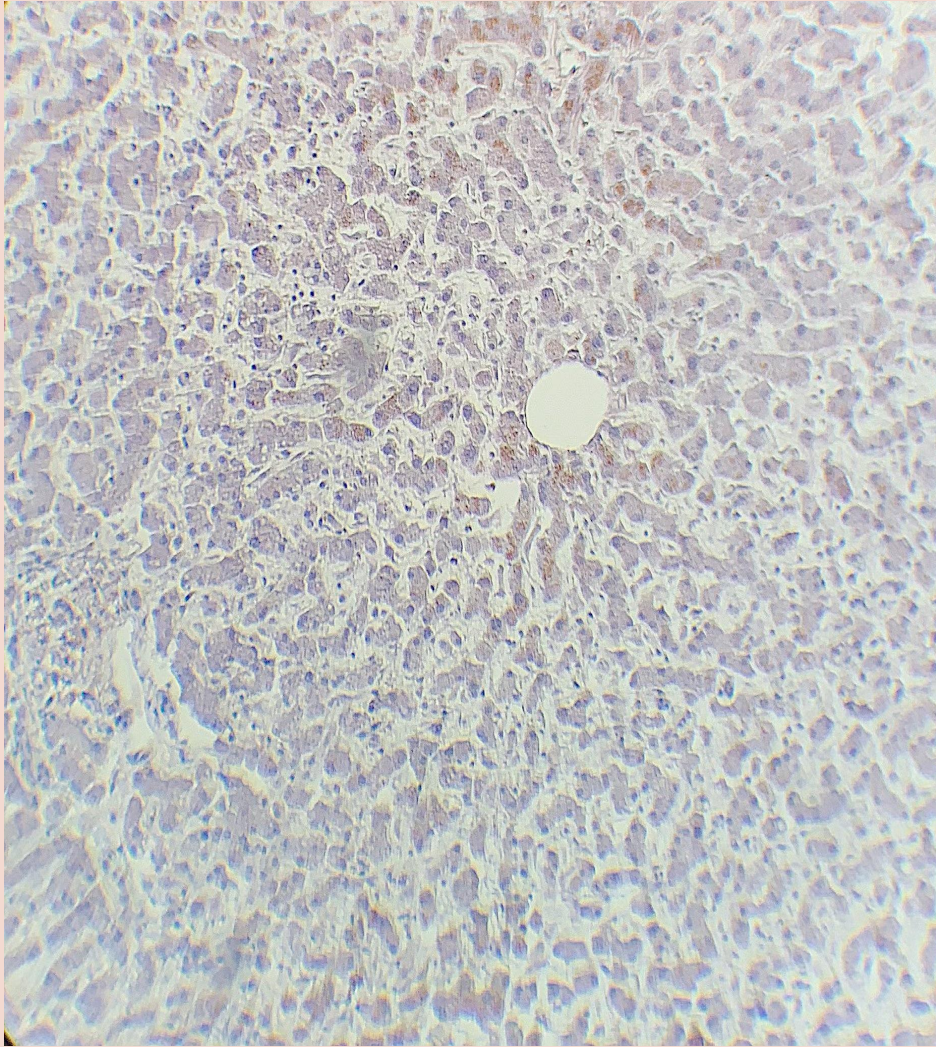


Brain, H&E, x200



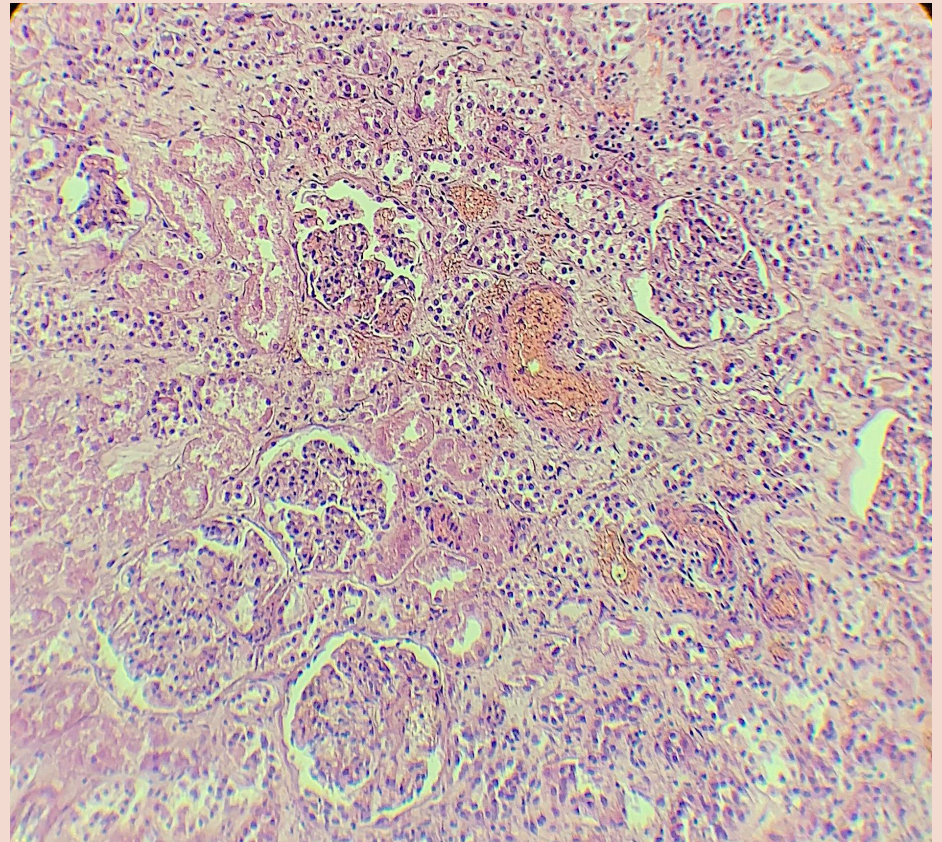
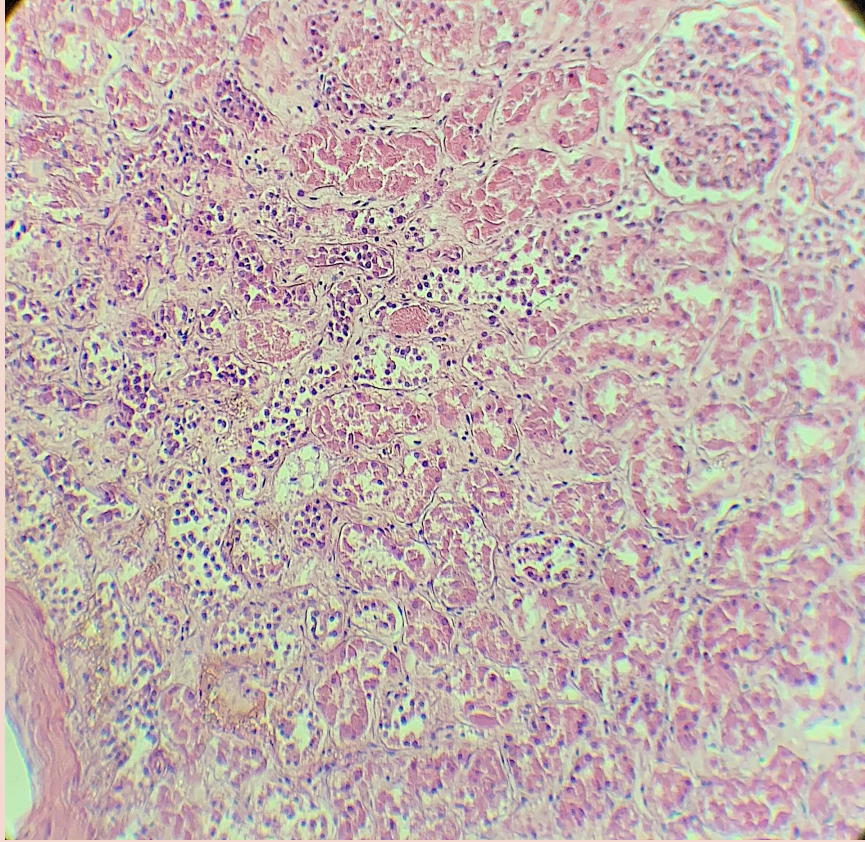


Liver, H&E, x400, x200



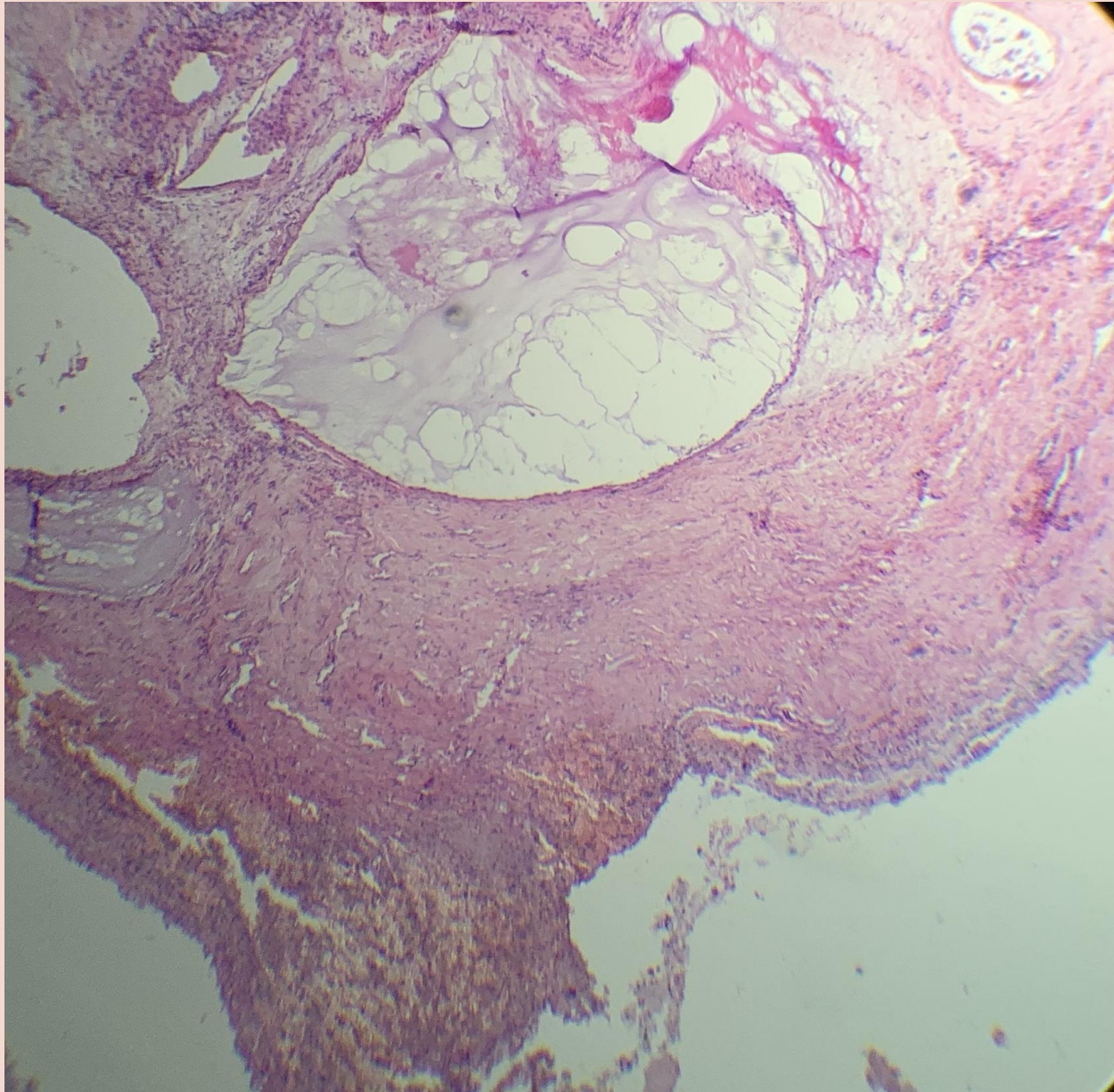


Kidney, H&E, x400



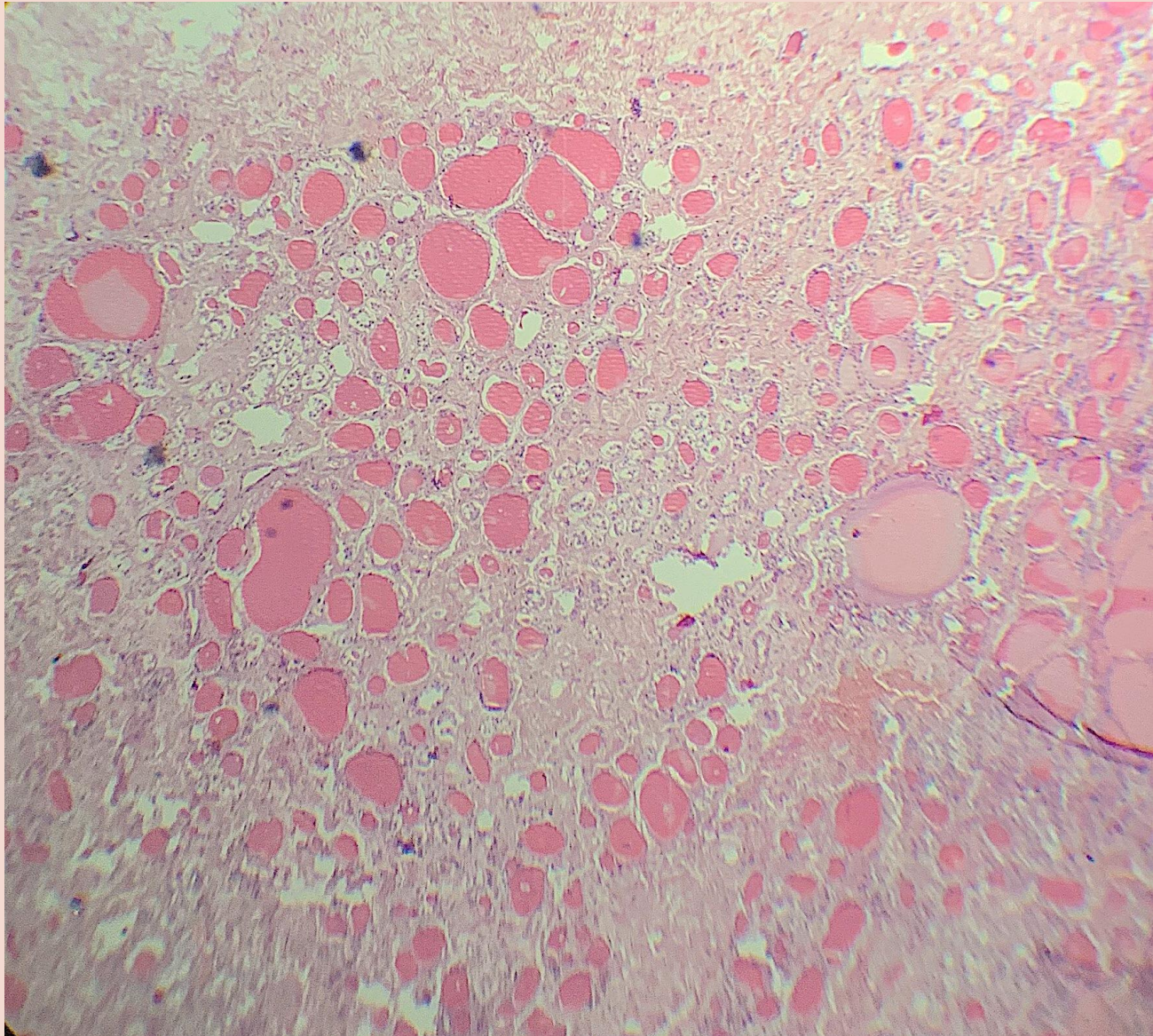


Uterus, H&E, x200





Thyroid, H&E, x200



# Final clinical diagnosis:

**The underlying disease.** Ovarian cancer T3N1M1, III A2: histologically - undifferentiated endometrioid adenocarcinoma RE4 +, HER 2-neu-negative. Carcinomatosis of the peritoneum. Ascites. Metastasis in S 10 of the right lung. 2 courses of PCT according to the RS scheme from July 2020 to September 2020.

**Concomitant disease.** Ischemic heart disease: angina pectoris II FC. Postinfarction cardiosclerosis from 2012 and 2018. RCA stenting in the distal region, aspiration of thrombi from the PTA RCA in the distal region from November 17, 2018

**Background disease.** Hypertension stage III, grade 3, risk of CVC 4.

Accompanying illnesses. D12.5 Sigmoid tubulovillous adenoma with moderate epithelial dysplasia.

Accompanying illnesses. Chronic pyelonephritis. Nodular goiter. Hypothyroidism

Hemithyroidectomy on the left, resection of the right lobe of the thyroid from 2008.

Arthrosis of both shoulder joints.

Complications. Acute pulmonary heart failure. Tumor intoxication. Mild anemia. Myocardial infarction type II. Thromboembolism of the branches of the pulmonary artery.

Stress-induced erosion and stomach ulcers with possible development of gastrointestinal bleeding. Bilateral hydrothorax. Pulmonary edema. Cerebral edema. Resuscitation measures. Indirect cardiac massage



# Pathological diagnosis (primary):

**The underlying disease.** Ovarian cancer with parietal and visceral peritoneum carcinomatosis, liver metastases Operation of laparoscopic bilateral adnexectomy (date unknown). 2 courses of polychemotherapy from 08.2020. pTxN1M1.

**Complications.** Thrombosis of the branch of the superior mesenteric artery. Wet gangrene of the loop of the small intestine. Fibrinous peritonitis. Shock of mixed etiology. Hemorrhagic syndrome: multiple petechial hemorrhages on the skin, parietal and visceral peritoneum; imbibition with blood of the lower lobes of both lungs. Fatty degeneration of the liver and myocardium. Shock kidneys. Ascites (3000 ml). Bilateral hydrothorax (700 ml in the left pleural cavity, 200 ml in the right pleural cavity). Pulmonary edema. Cerebral edema.

Resuscitation measures: chest compressions.

# Pathological diagnosis (primary):

**Accompanying illnesses.** Chronic obstructive mucous bronchitis. Diffuse reticular pneumosclerosis. Chronic obstructive pulmonary emphysema. Large focal cardiosclerosis in the lateral wall of the left ventricle. Atherosclerosis of the aorta (fat spots and stripes), coronary arteries of the heart (fat spots and stripes). Operations of stenting of the right coronary artery in the distal part, aspiration of blood clots from the posterior lateral branch of the right coronary artery, stenting of the posterior lateral branch of the right coronary artery in the distal part, 11/17/2018 (clinically). Nodular goiter (clinically). Operation of hemithyroidectomy on the left, resection of the right lobe of the thyroid gland (2008). Endometrial polyp.

The clinical and pathological diagnoses coincided. Notes on patient management: the last blood test performed was dated 08/28/2020, the date of death was 09/15/2020. The immediate cause of death is peritonitis.

## CLINICOPATHOLOGIC CORRELATION

Patient N, 67 years old, suffered from ovarian cancer with carcinomatosis of the peritoneum and metastases to the liver for a long time, the patient underwent bilateral laparoscopic adnexectomy (at autopsy: both fallopian tubes and both ovaries were absent, on the anterior abdominal wall there were scars from laparoscopic access). The patient developed tumor coagulopathy, manifested by thrombosis of the coronary arteries of the heart in the distal regions, which led to the development of myocardial infarction and later - large-focal cardiosclerosis, as well as thrombosis of the superior mesenteric artery branch, complicated by moist gangrene of the loop of the small intestine and fibrinosis. The immediate cause of death is fibrinous peritonitis. The peculiarity of the case is a pronounced tumor coagulopathy, which led to the development of large-focal cardiosclerosis and intestinal gangrene.

## **Pathological diagnosis after histological examination:**

The histological examination confirmed the pathological diagnosis. Clarified the nature of the focus in the liver - a focus of sclerosis with calcification.

**Thank you for attention.**