



# Prípad č.14

## **SD IAP 500**



**Peter SZÉPE**

**MBC a ÚPA JLF UK a UN, Martin**



**XIX. Martinský bioptický seminár SD IAP, Lúčky , 25.-26.10. 2013**

# Klinické údaje

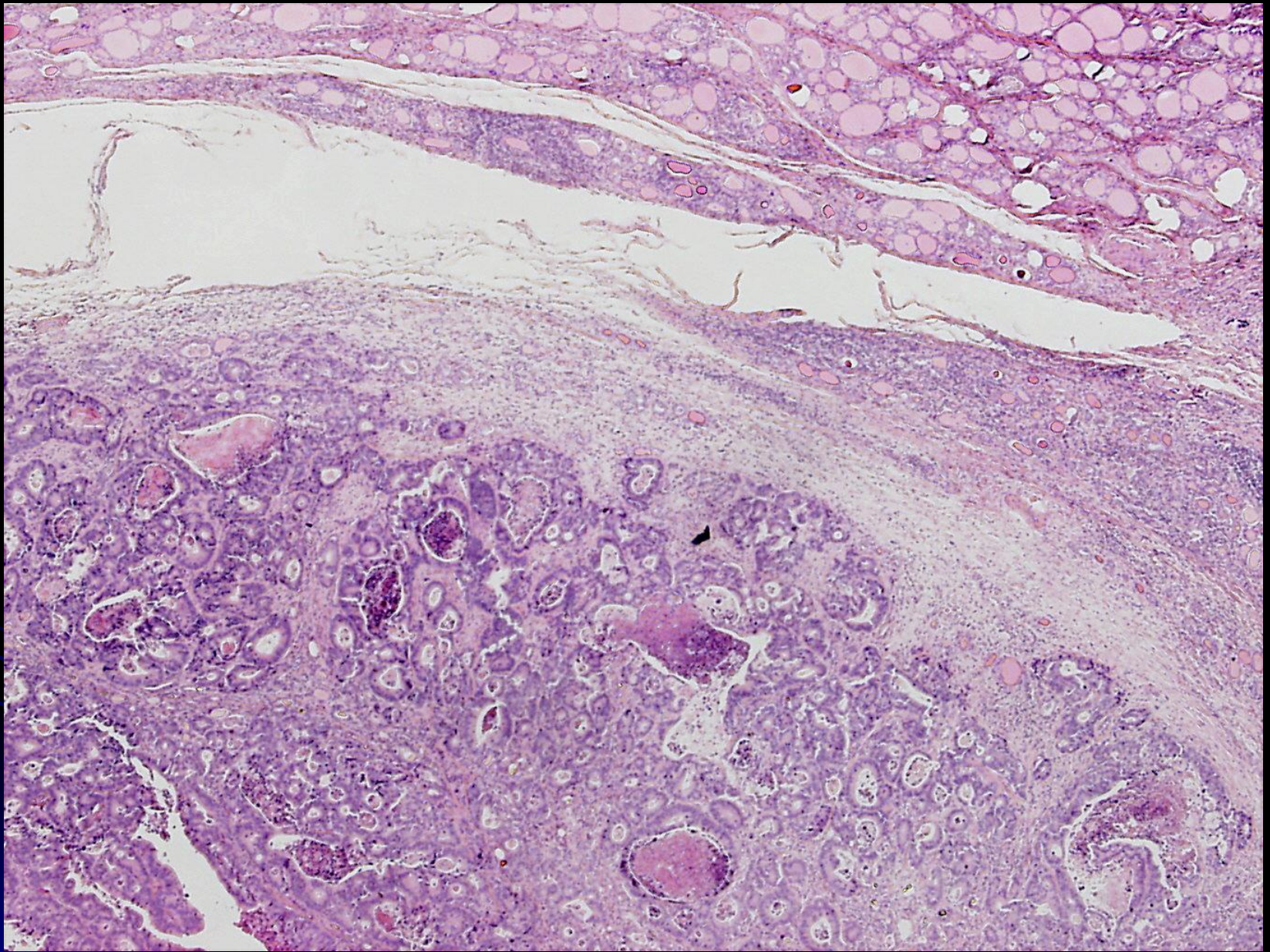
- 68 ročná žena s obojstranne zväčšenou štítnou žľazou
- vykonaná totálna tyreoidektómia „en bloc“
- konzultačná biopsia z PAO Považská Bystrica ( prim. Dr. F. Koyš)
- Klinická dg.: **Struma nodosa bilat.**

# Operačný nález 10.7.2013

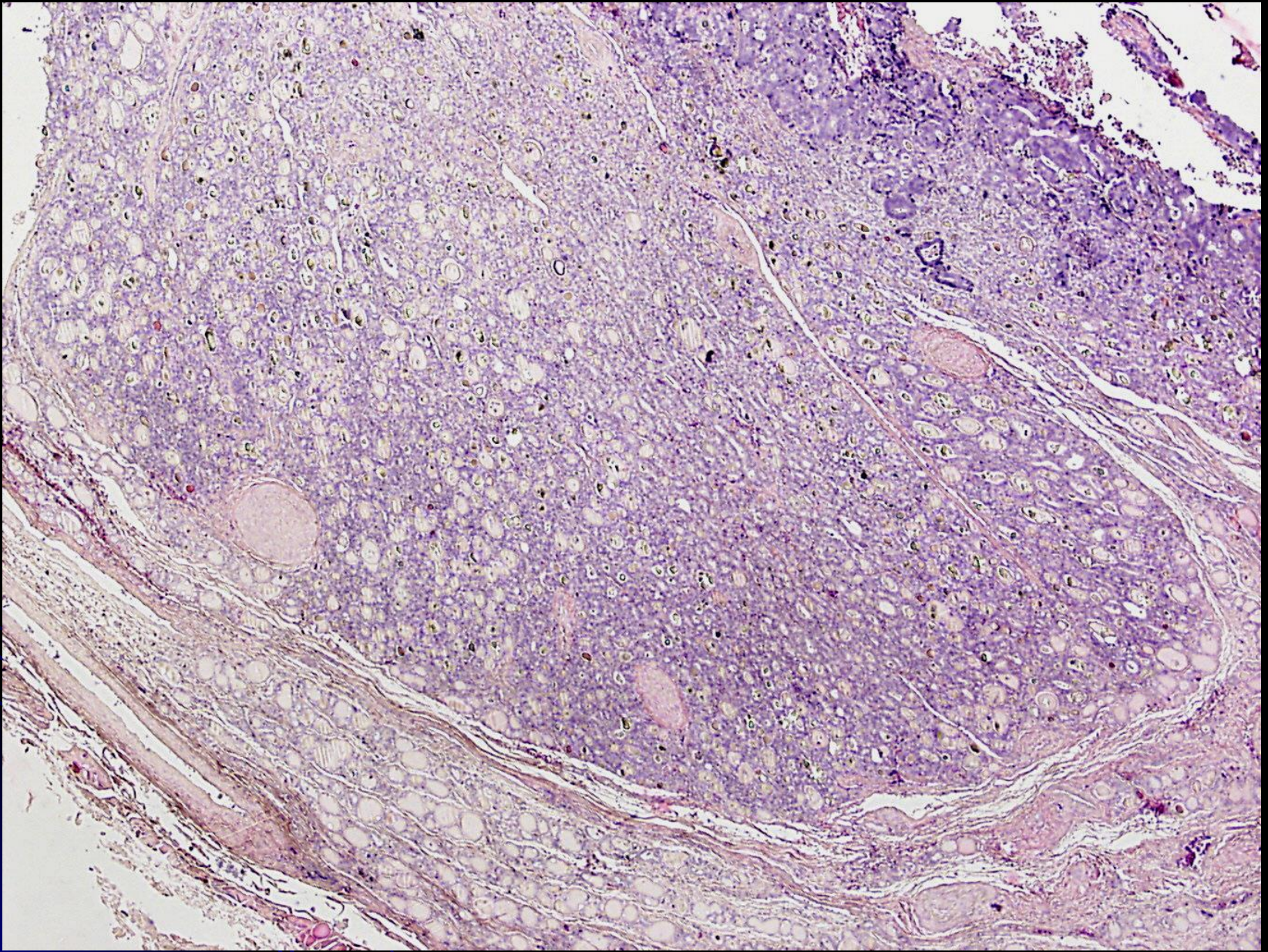
- **Oba laloky** štítnej žľazy **veľkosti cca 25x30 mm s nodozitami**, identifikujeme tracheu a istmus, fixujeme pravý lalok a preparujeme horný pól, ligujeme a. thyreoidea superior vo vetvách, ligujeme laterálnu venu a oddeľujeme dolné teliesko, vizualizujeme n. recurrens a vo vetvách ligujeme a. thyreoidea inferior. Pokračujeme po totálnej lobektómii en bloc cez istmus vľavo fixujeme horný pól ľaveho laloka, vo vetvách ligujeme art. a vena thyreoidea superior vo vetvách, ligujeme laterálnu venu a mobilizujeme dolný pól, ligujeme art. thyreoidea vo vetvách, oddeľujeme dolné teliesko, vizualizujeme n. recurrens a robíme totálnu lobektómiu.

prim. Dr. Korec ( Dr. Válek ), Chir.odd. NsP P.B.

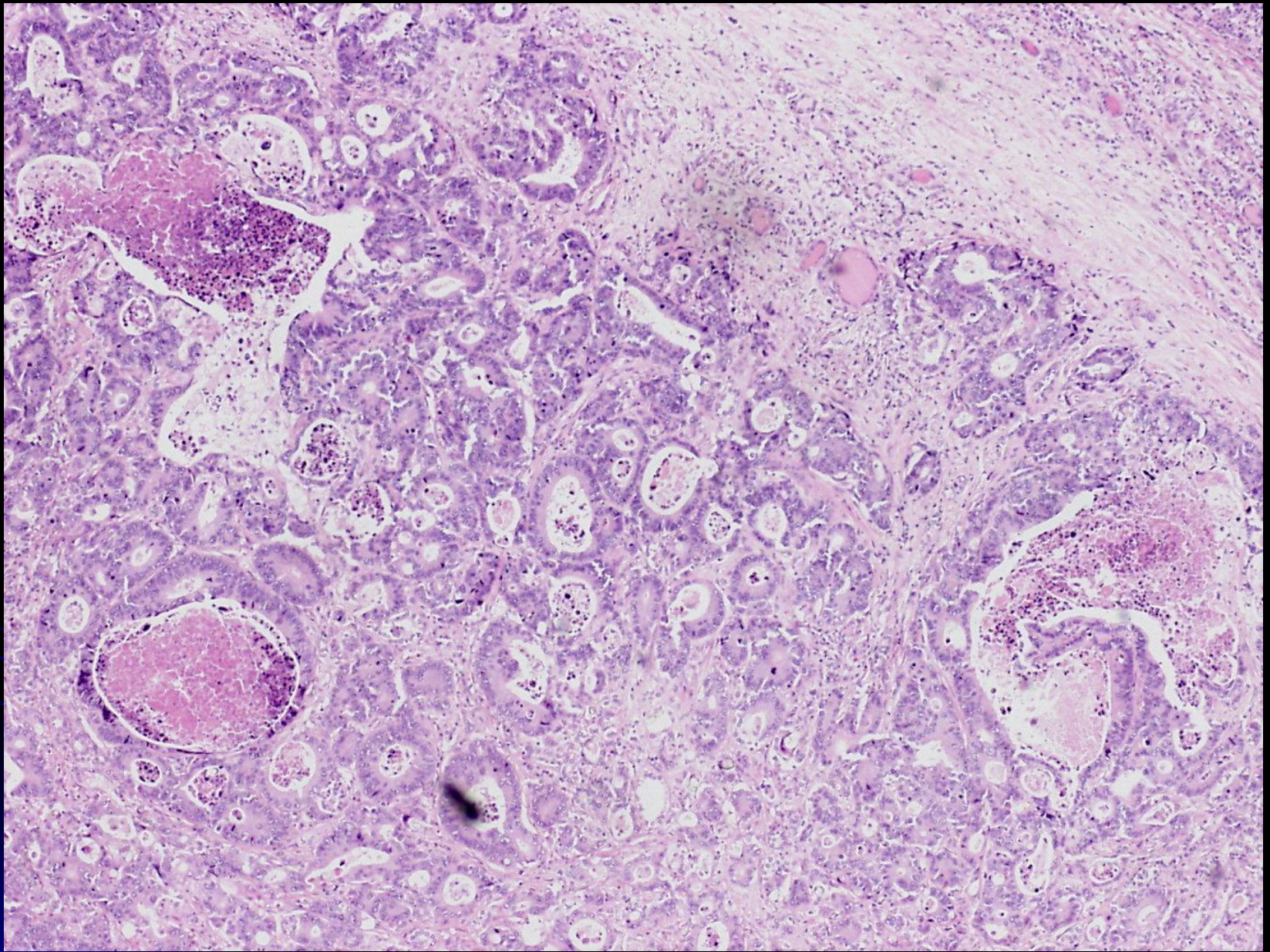




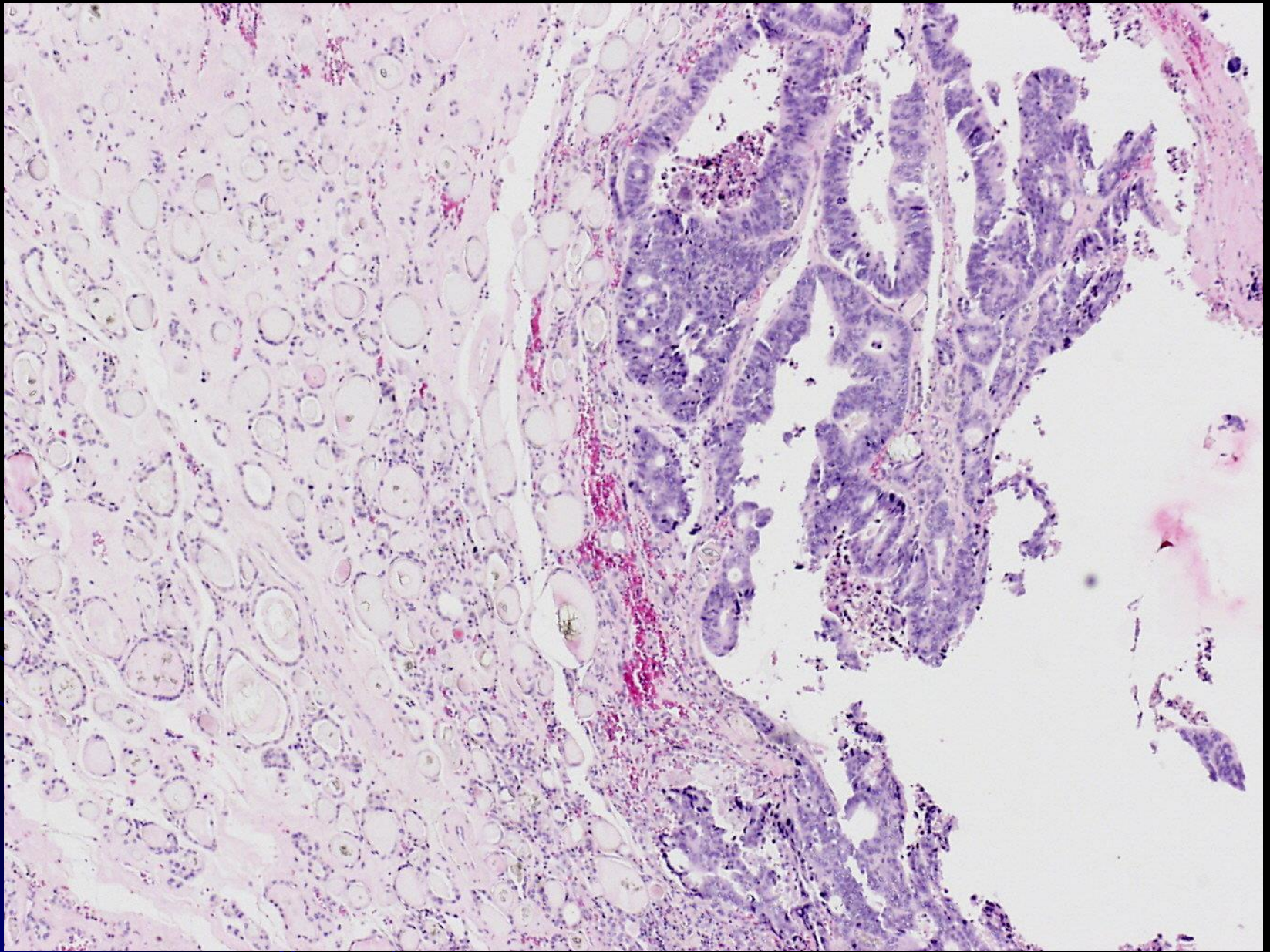




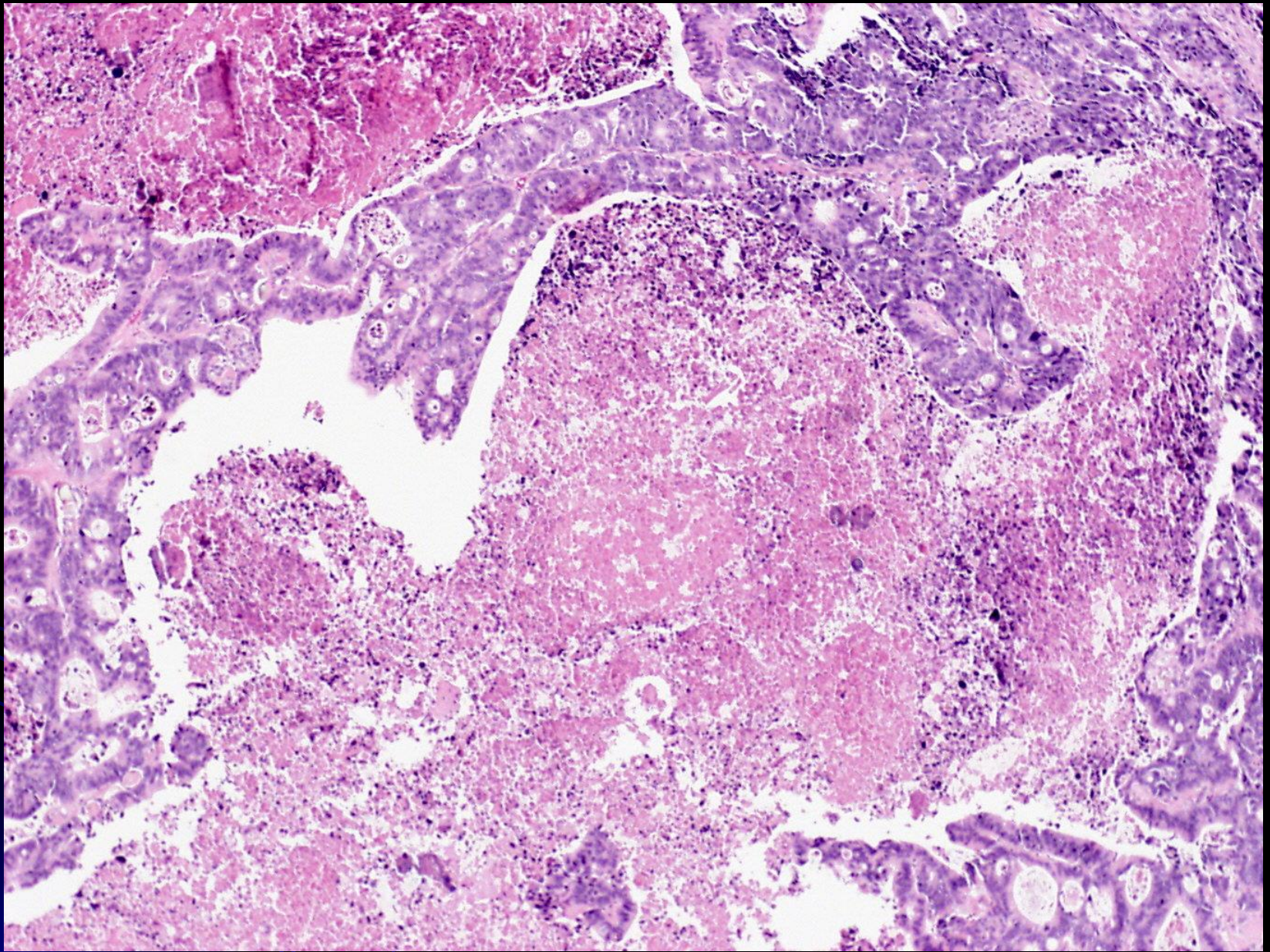




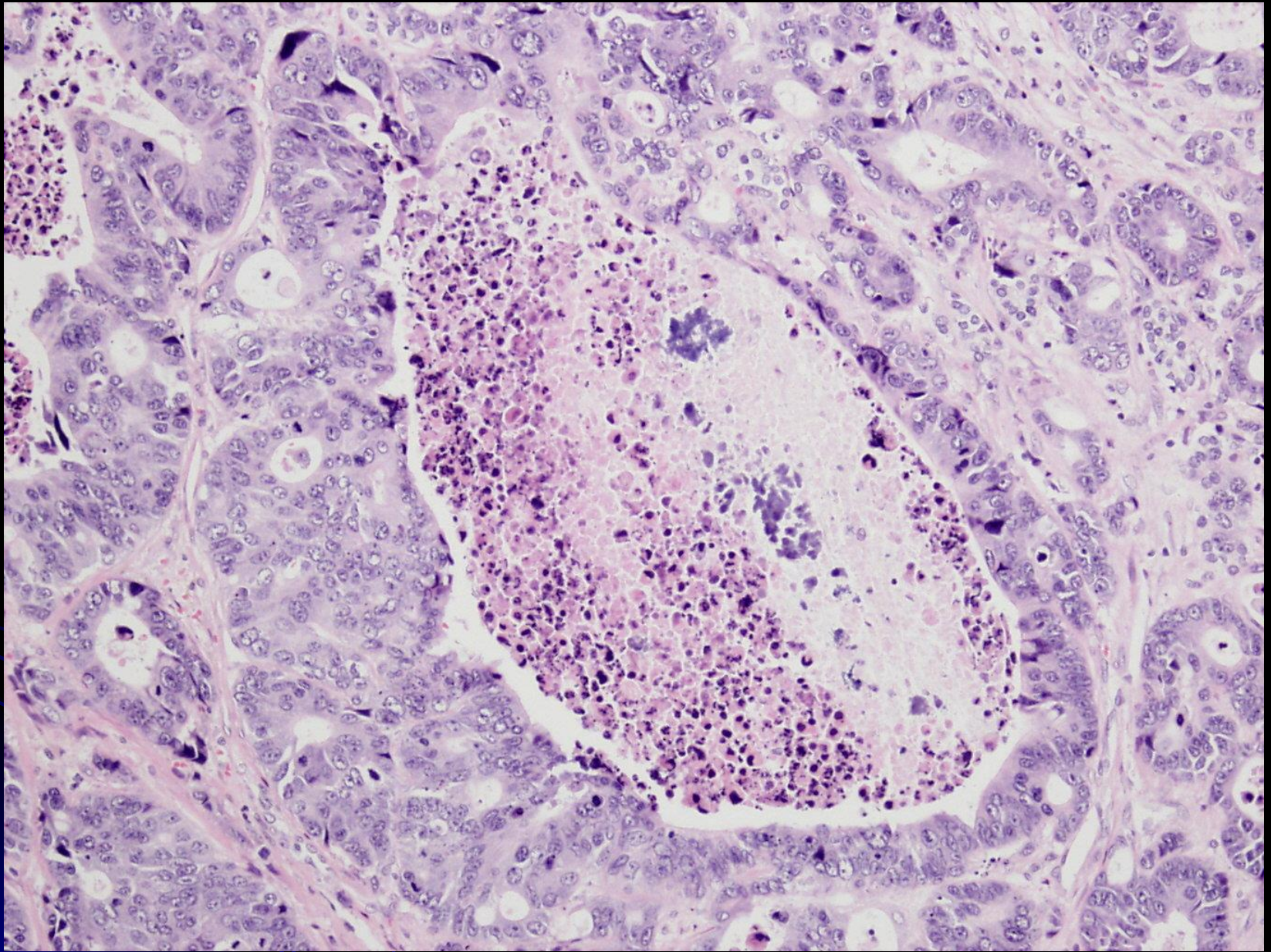




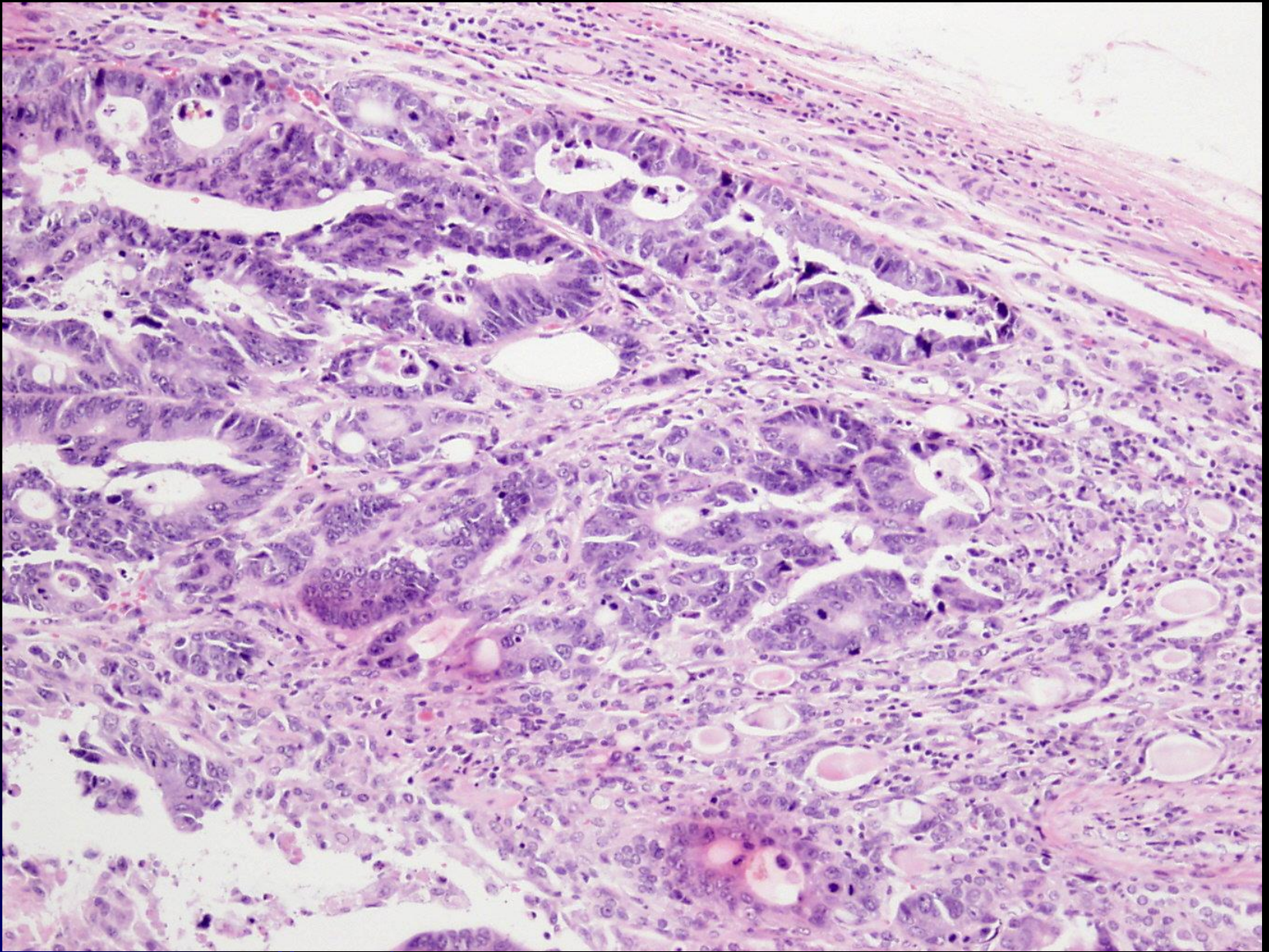




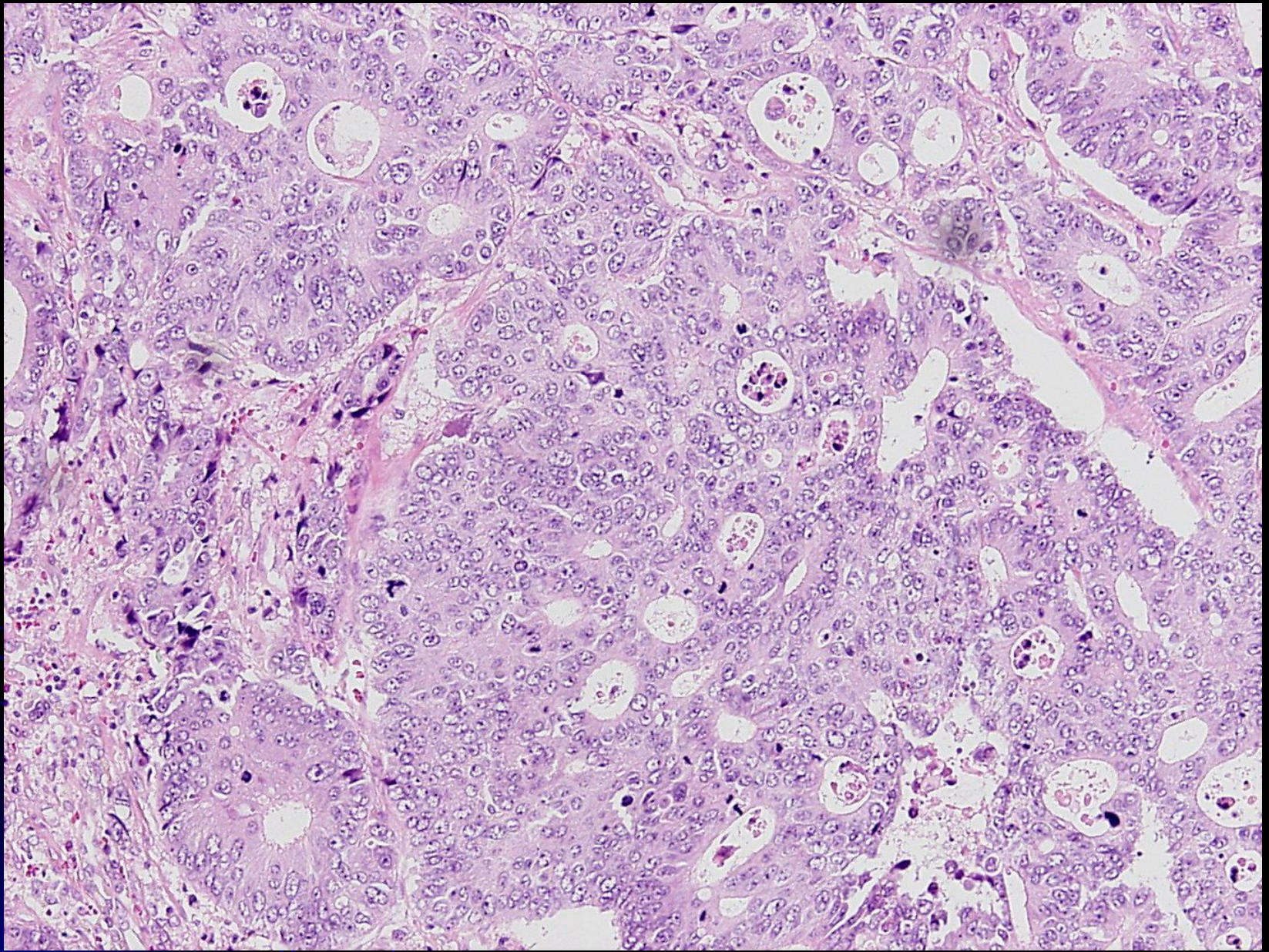




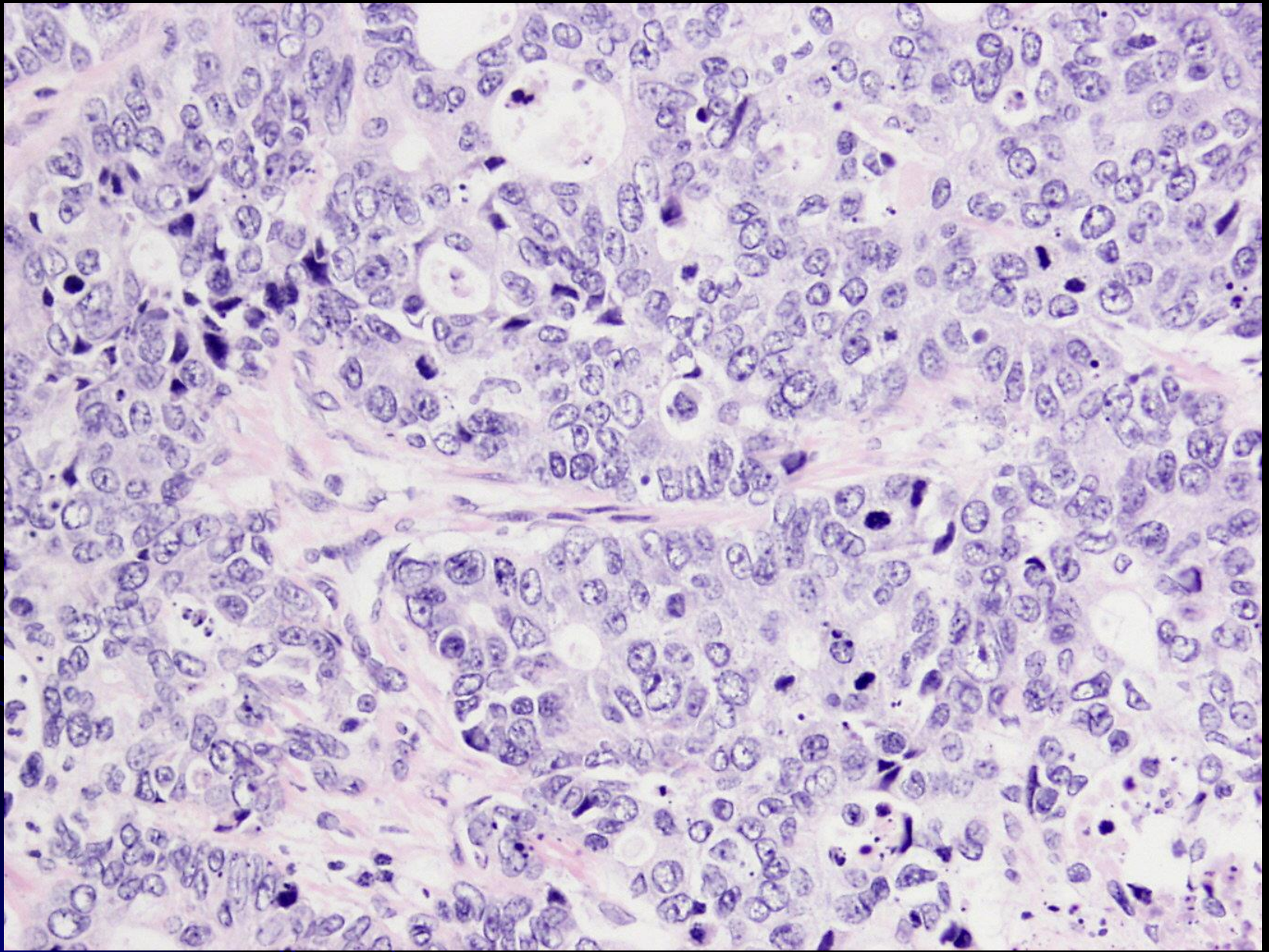




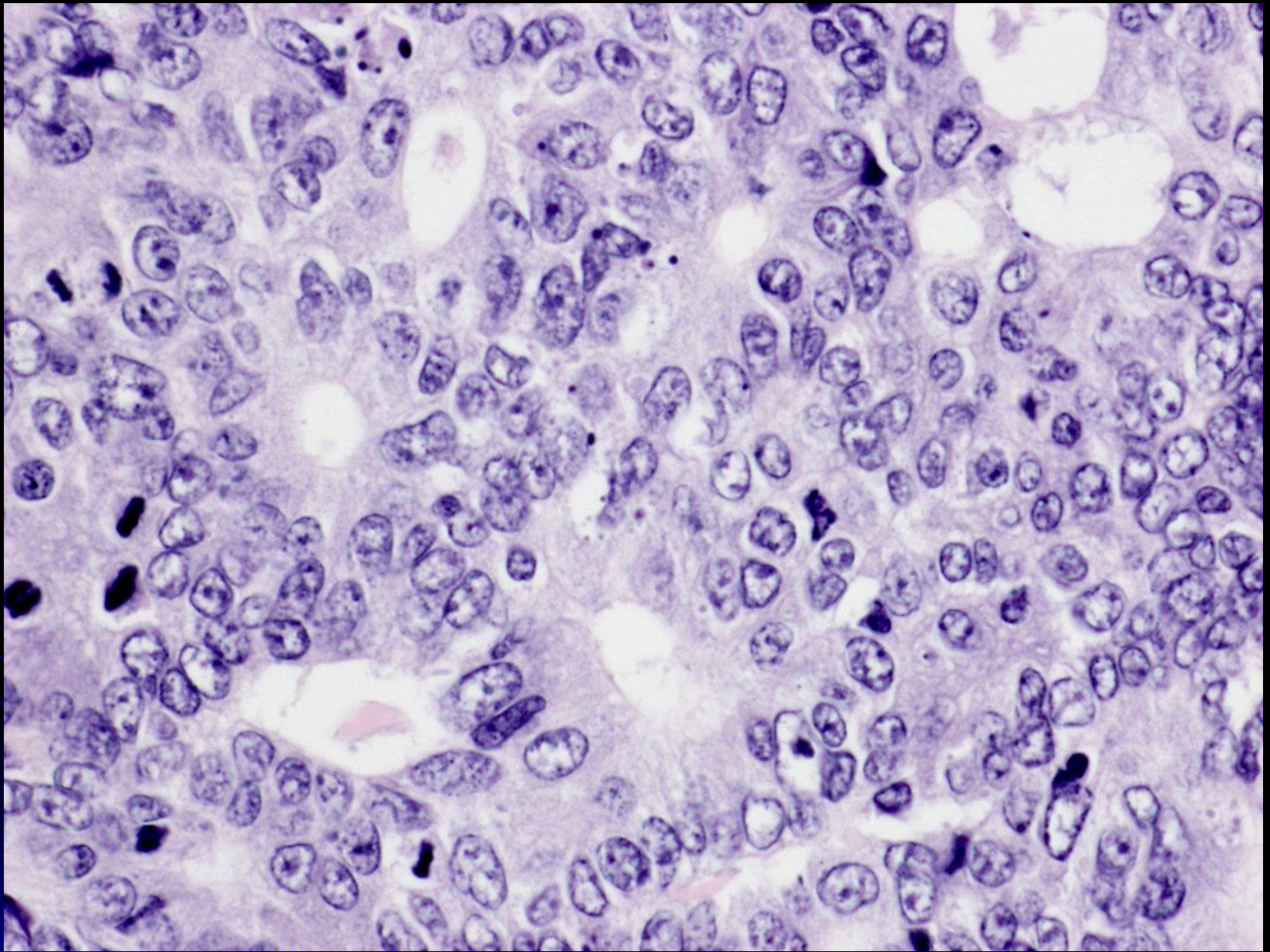




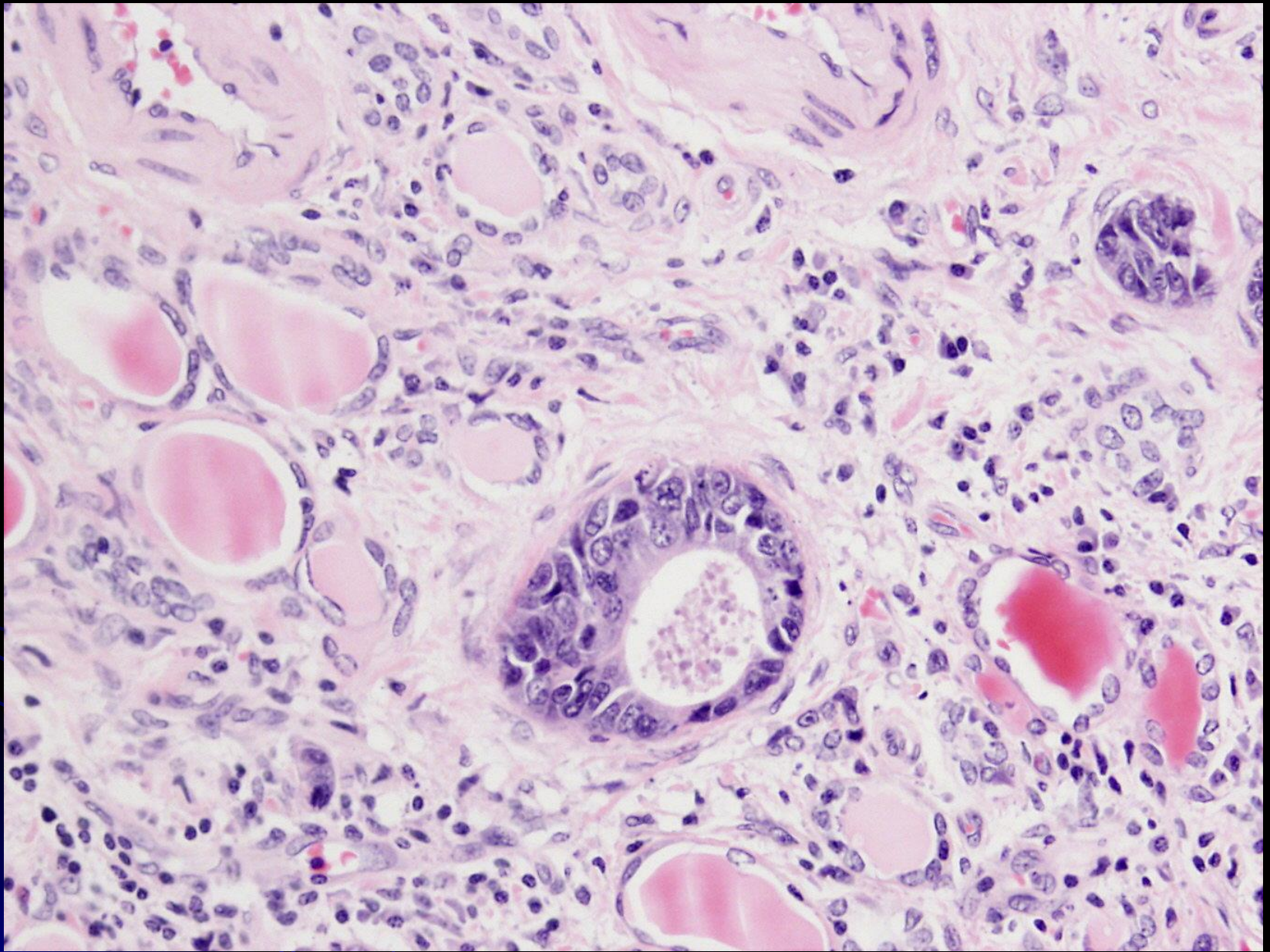




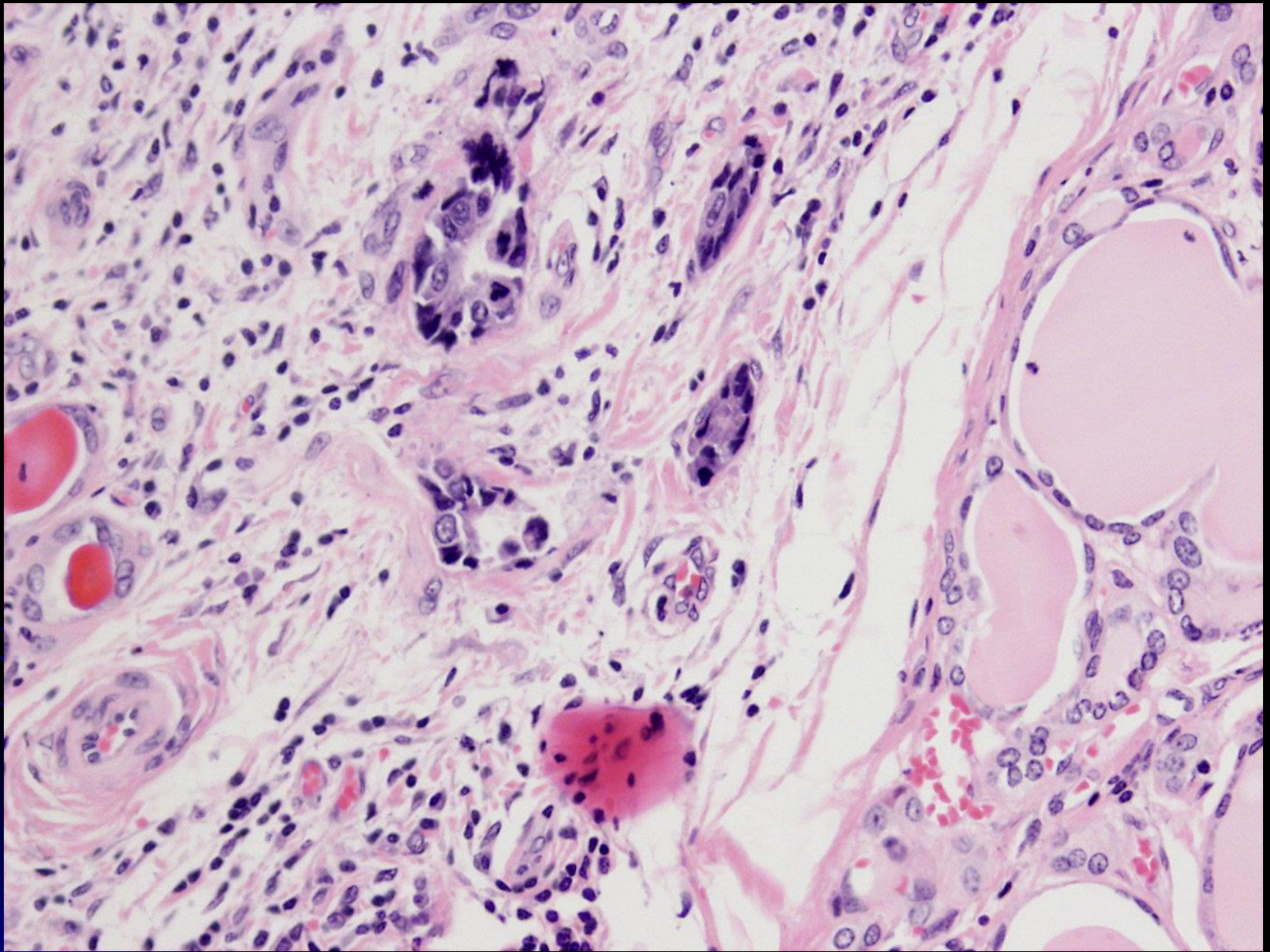




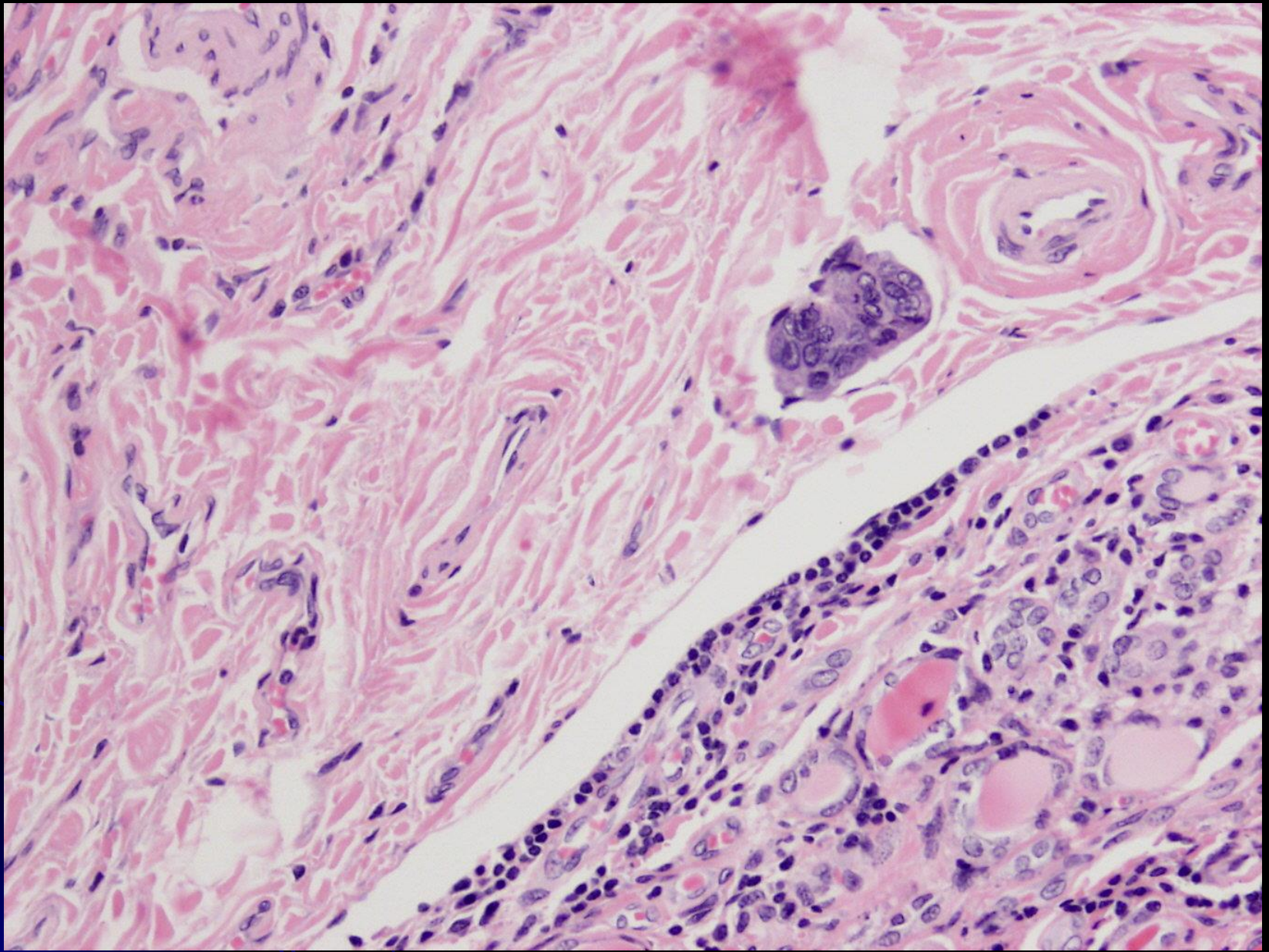




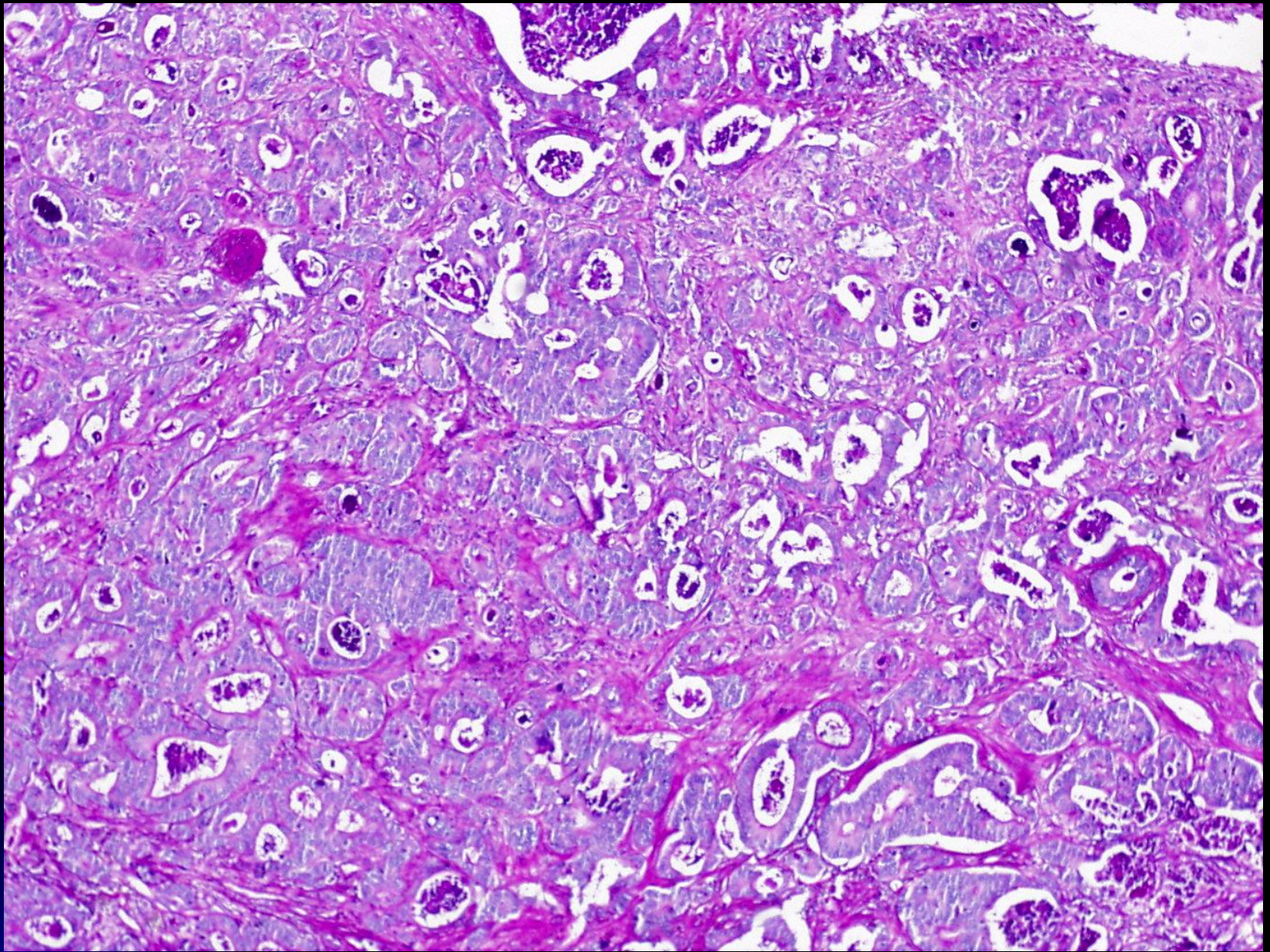




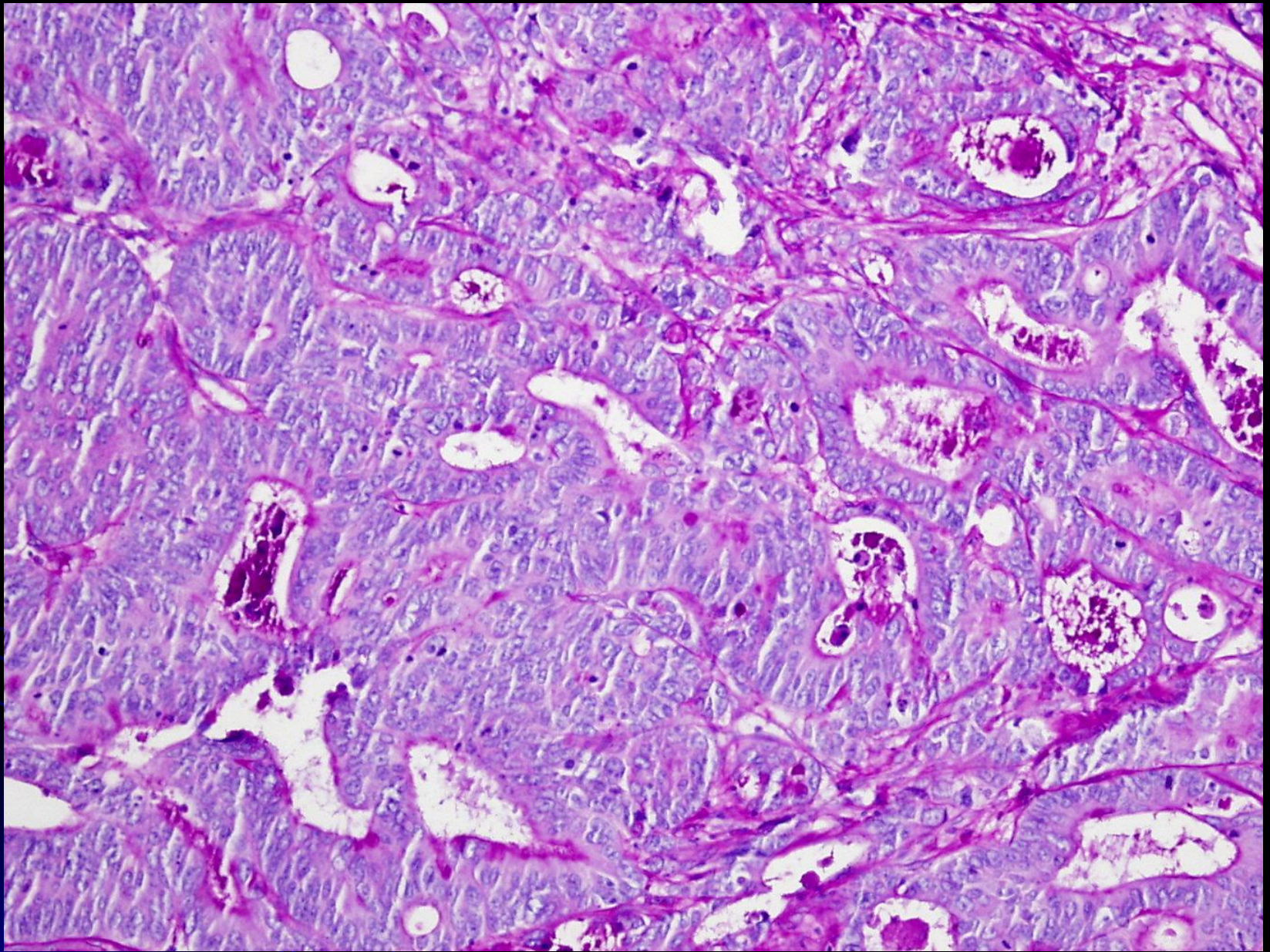




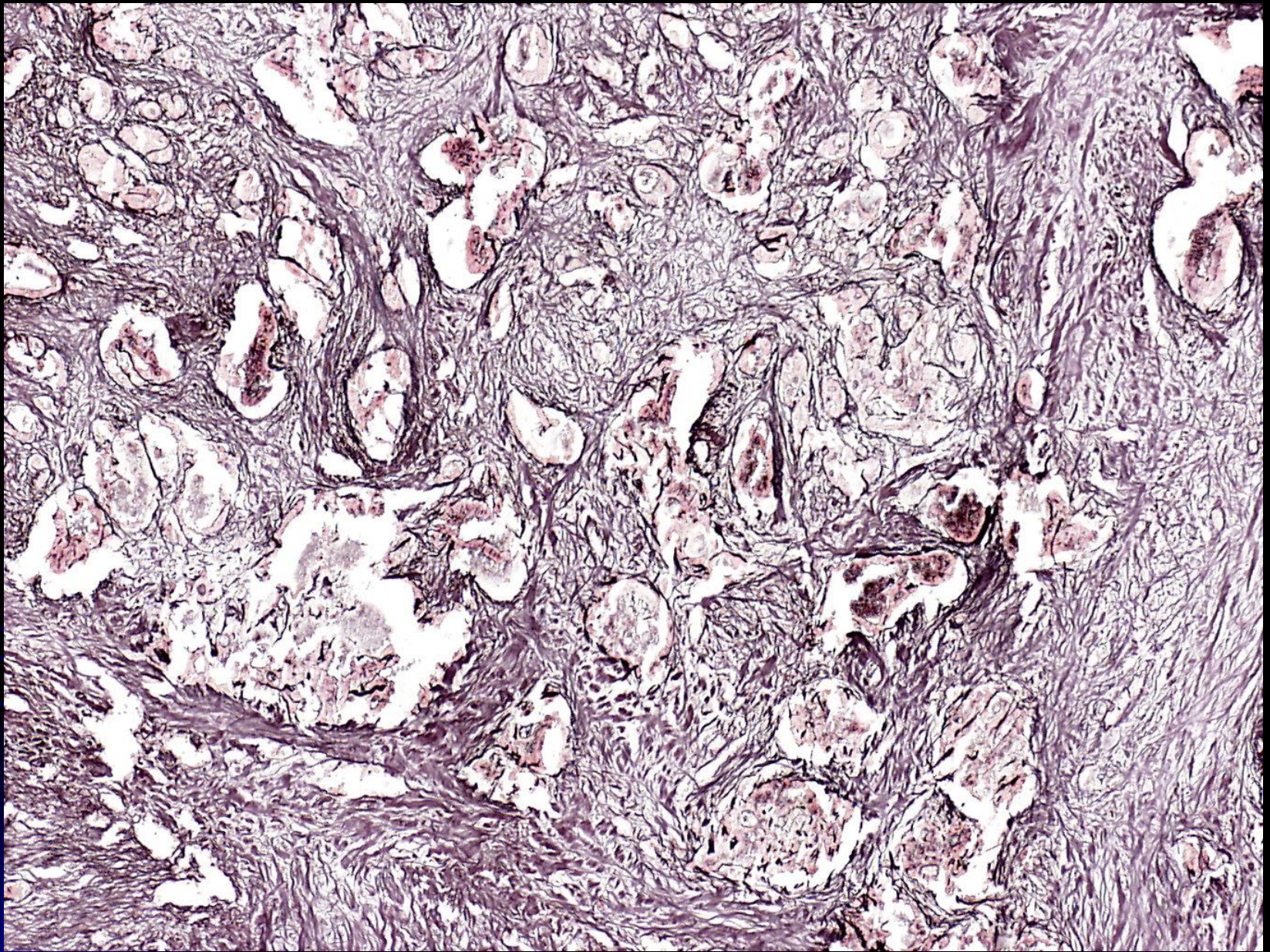




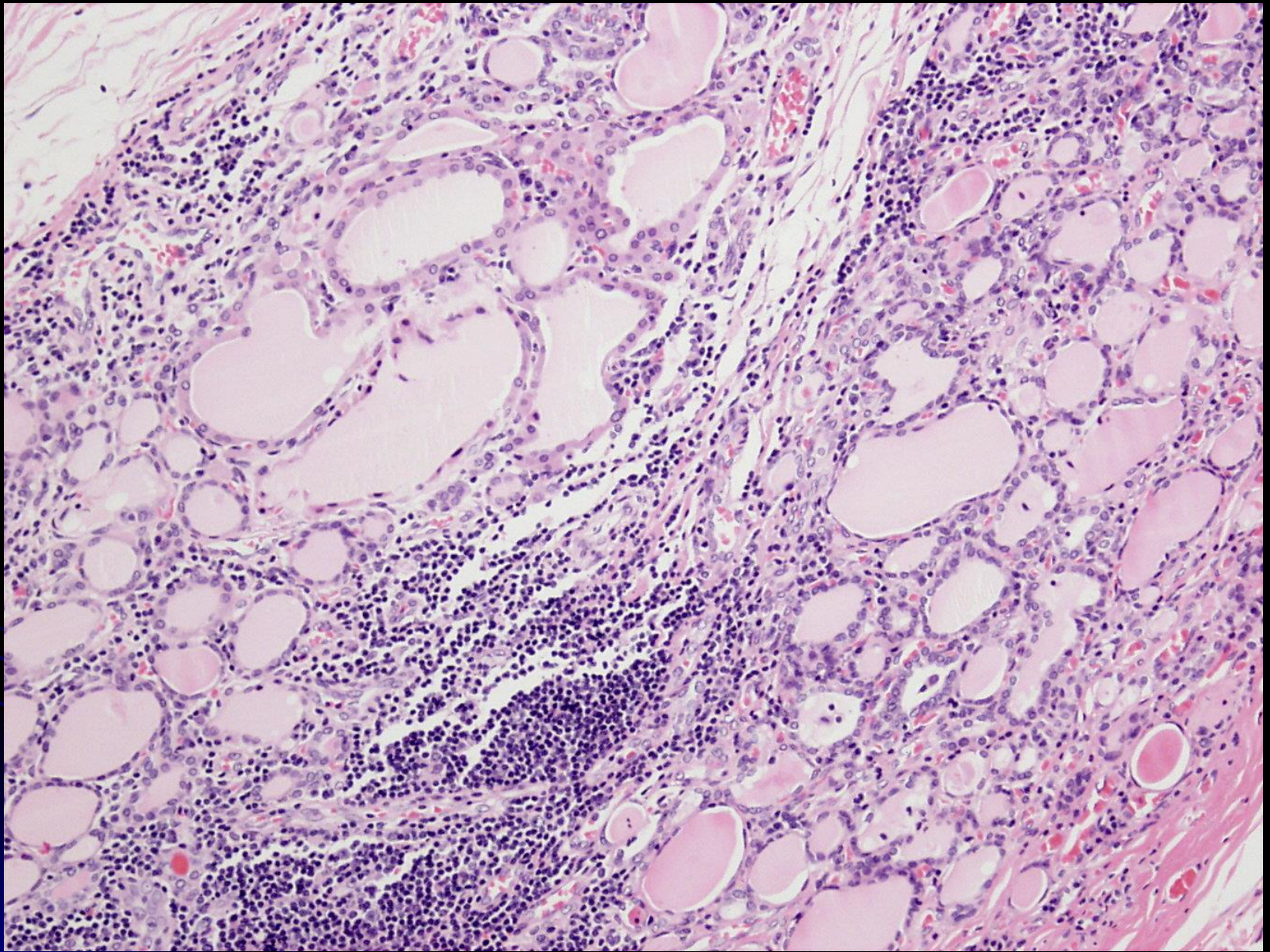




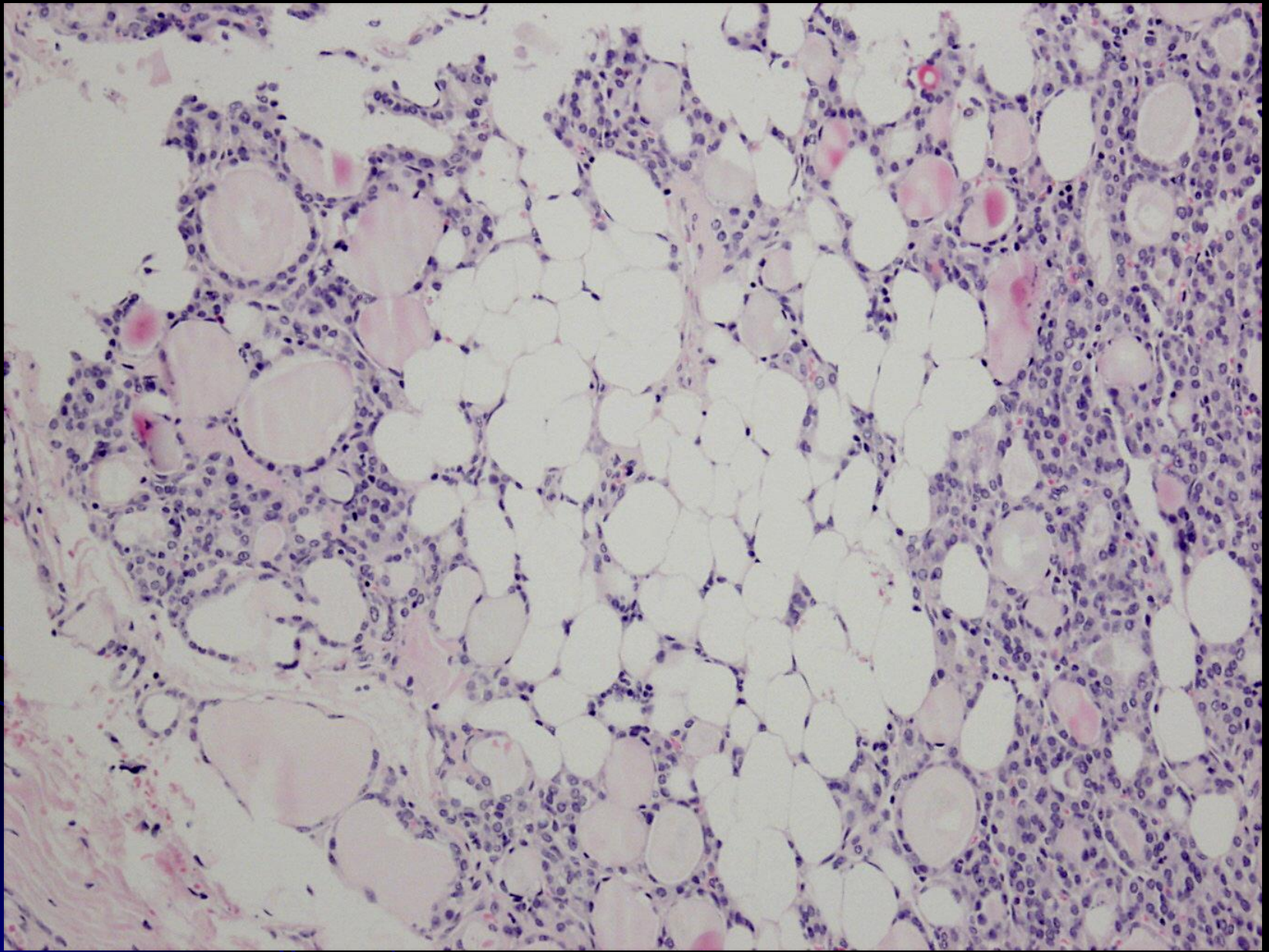




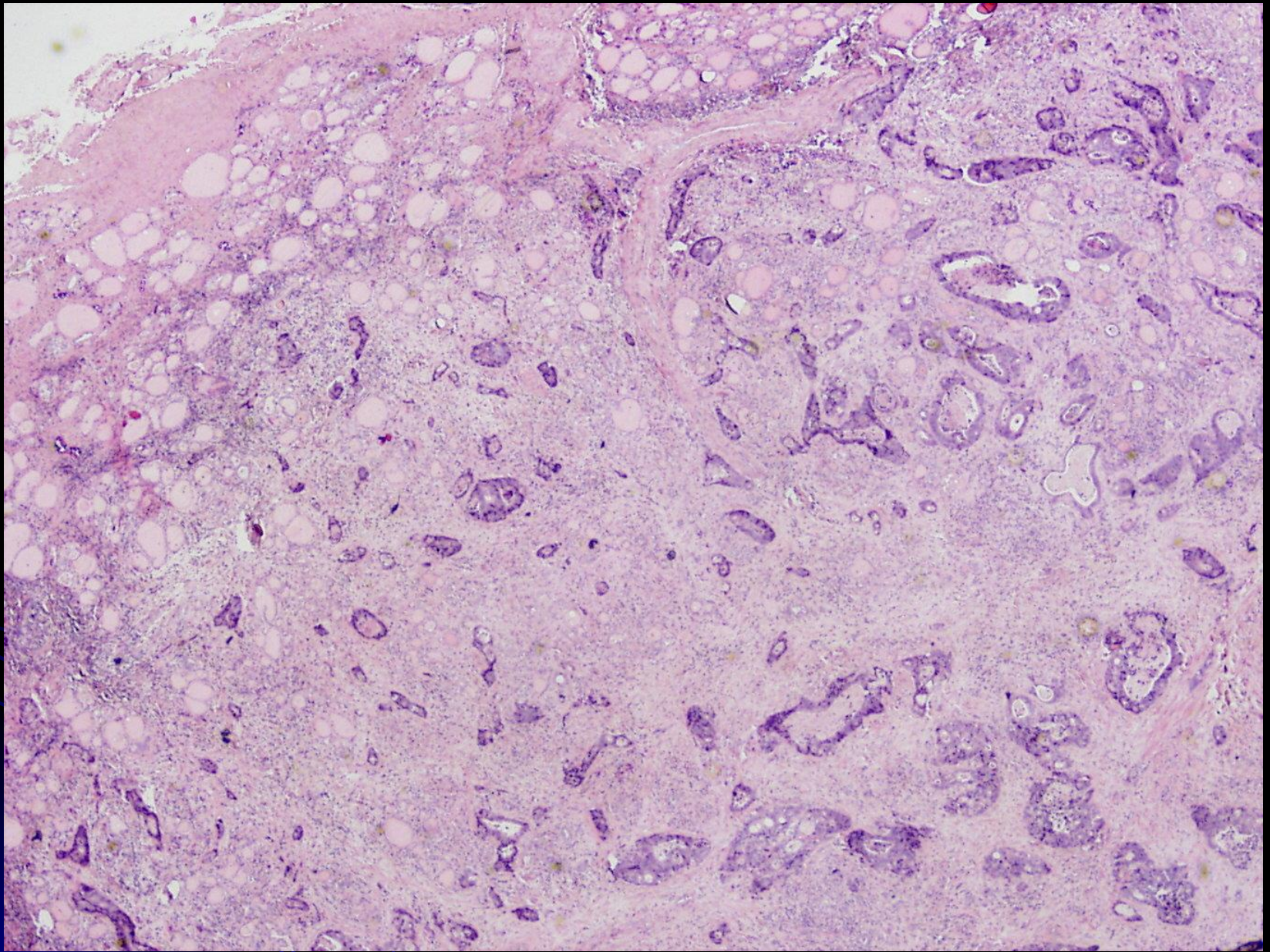




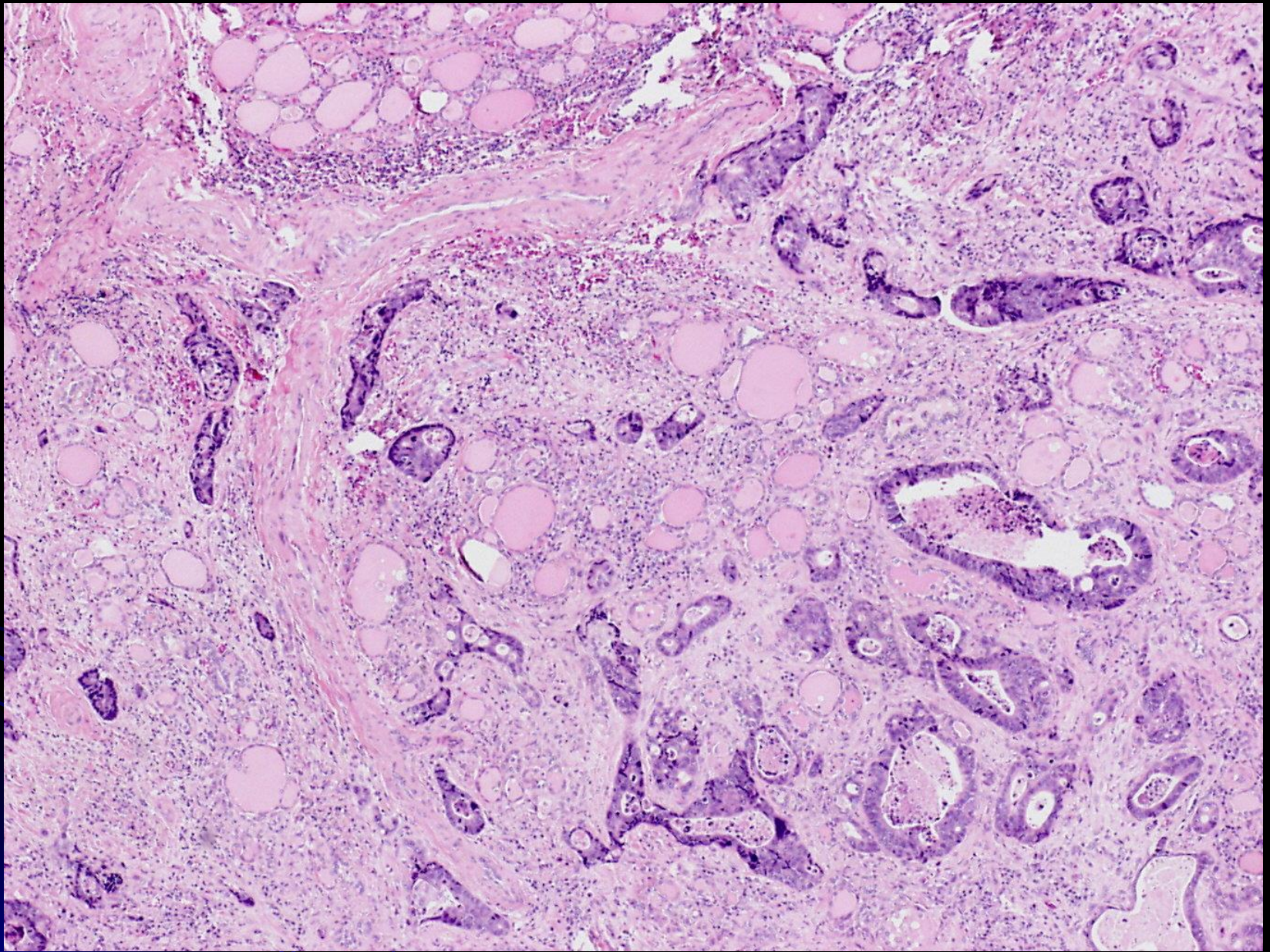




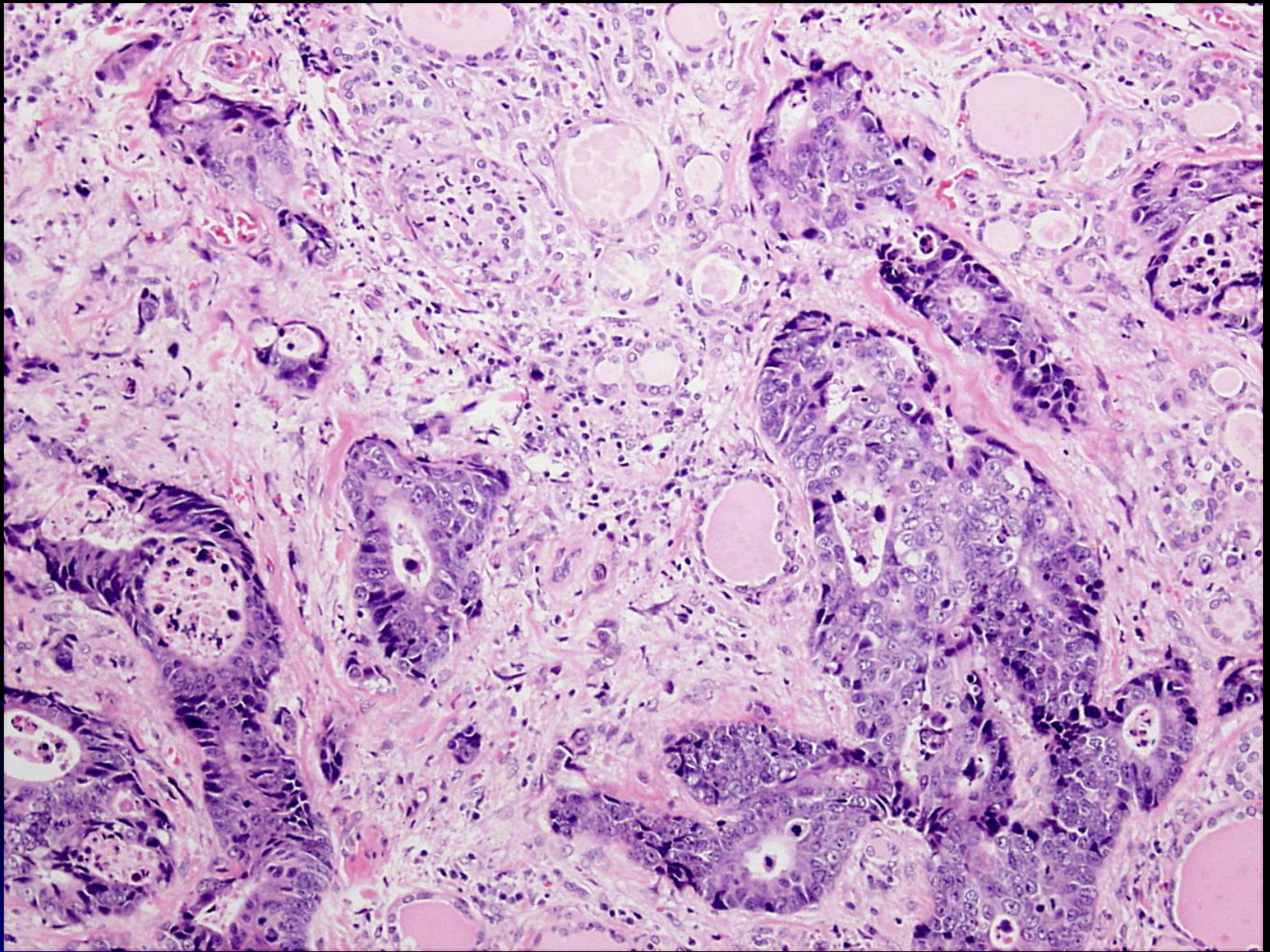
















? 1 alebo 2 tumory ?

? primárny alebo sekundárny Tu ?

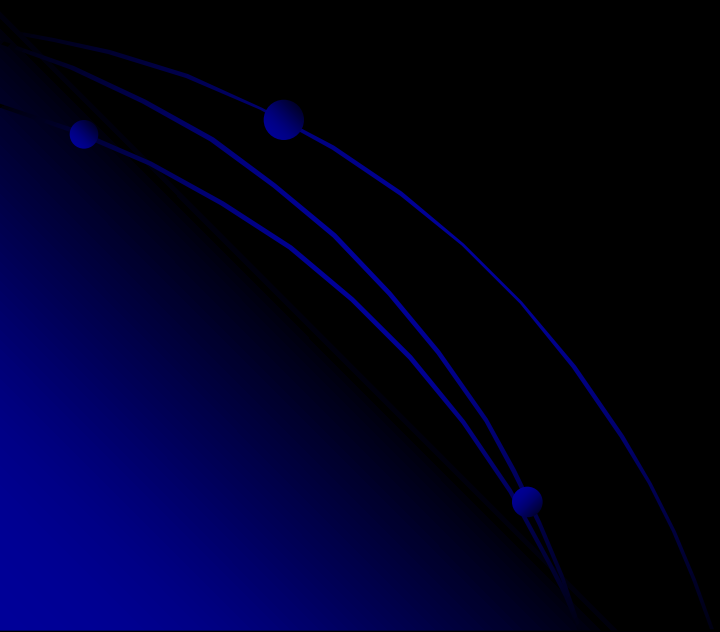


# Sumarizácia morfológie

- v oboch lalokoch štítnej žľazy sú ložiská adenokarcinómu
- tubulárny, kribriformný a sčasti až solídny rast
- ložiská nekróz, produkcie hlienu a dezmoplastickej reakcie strómy
- nepravidelné jadrá, v časti jadierka, v časti zárezy



# Diagnóza



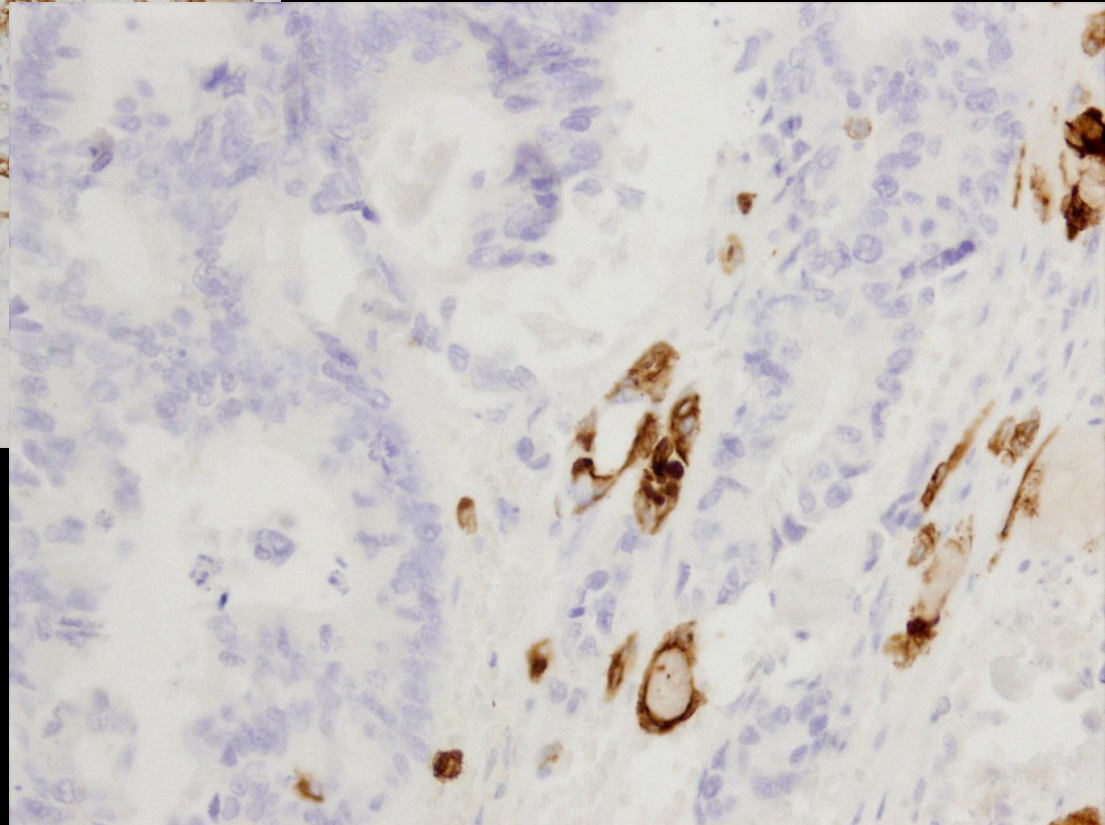
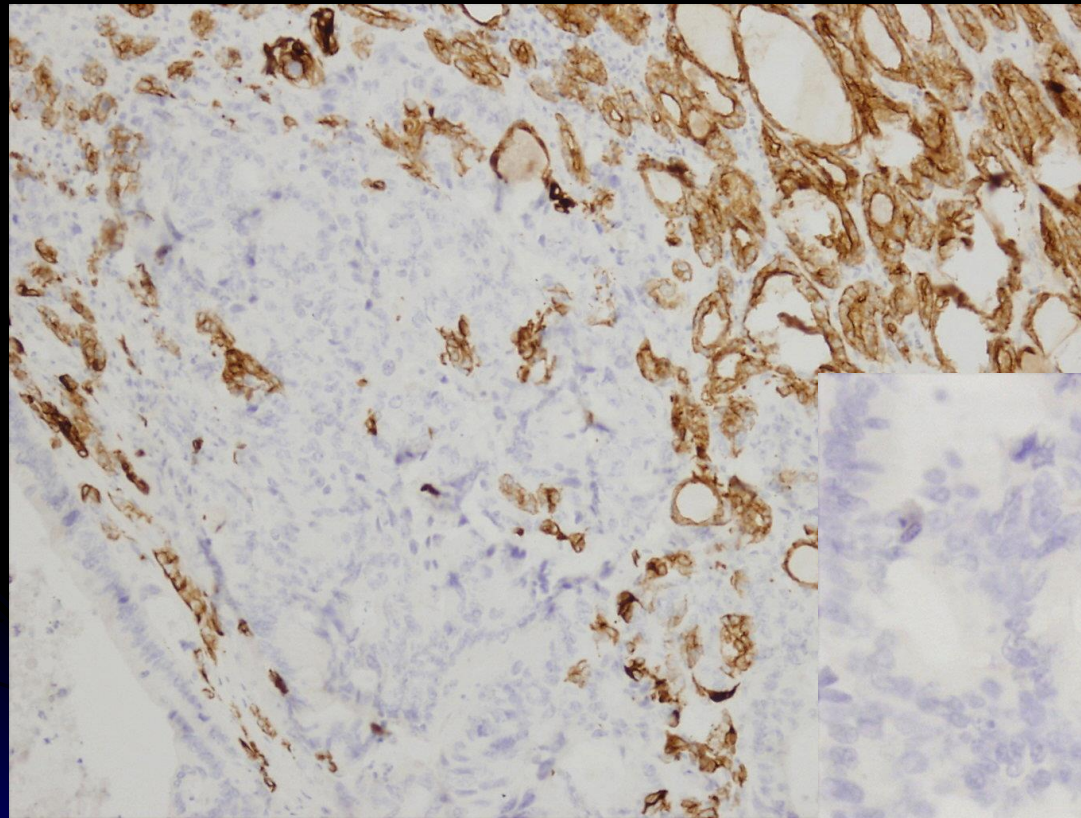


**Imuno** ...

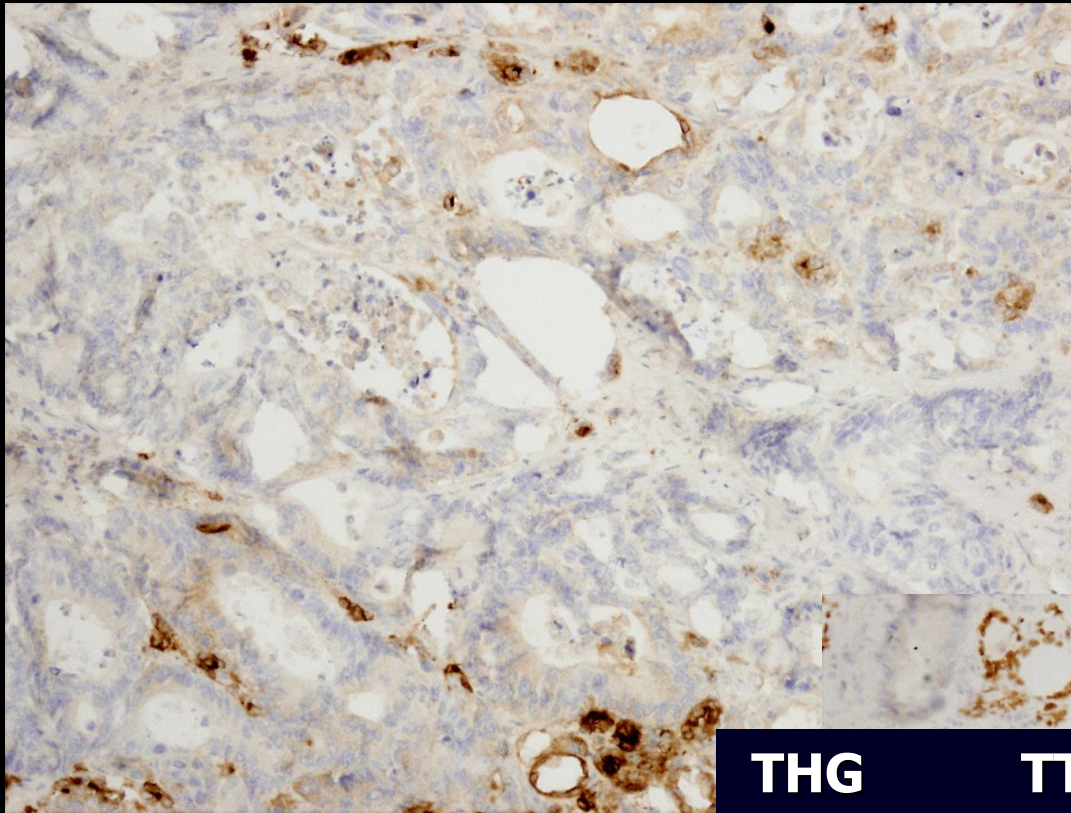


# Negativita

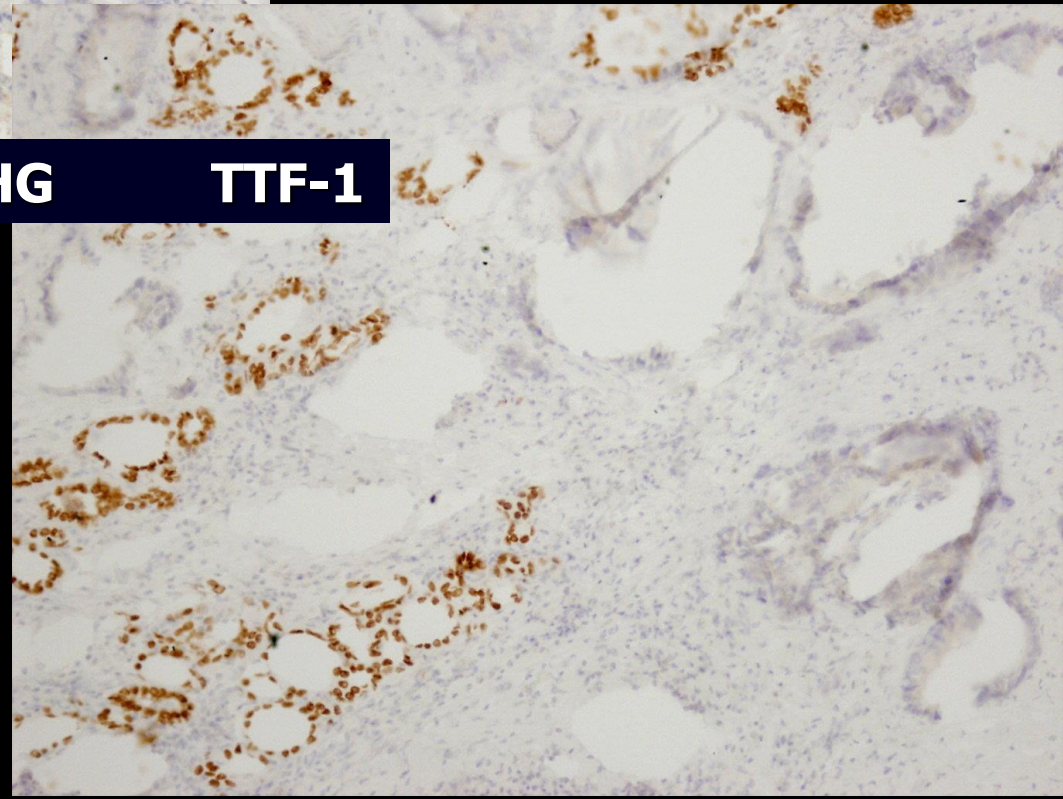
CK7





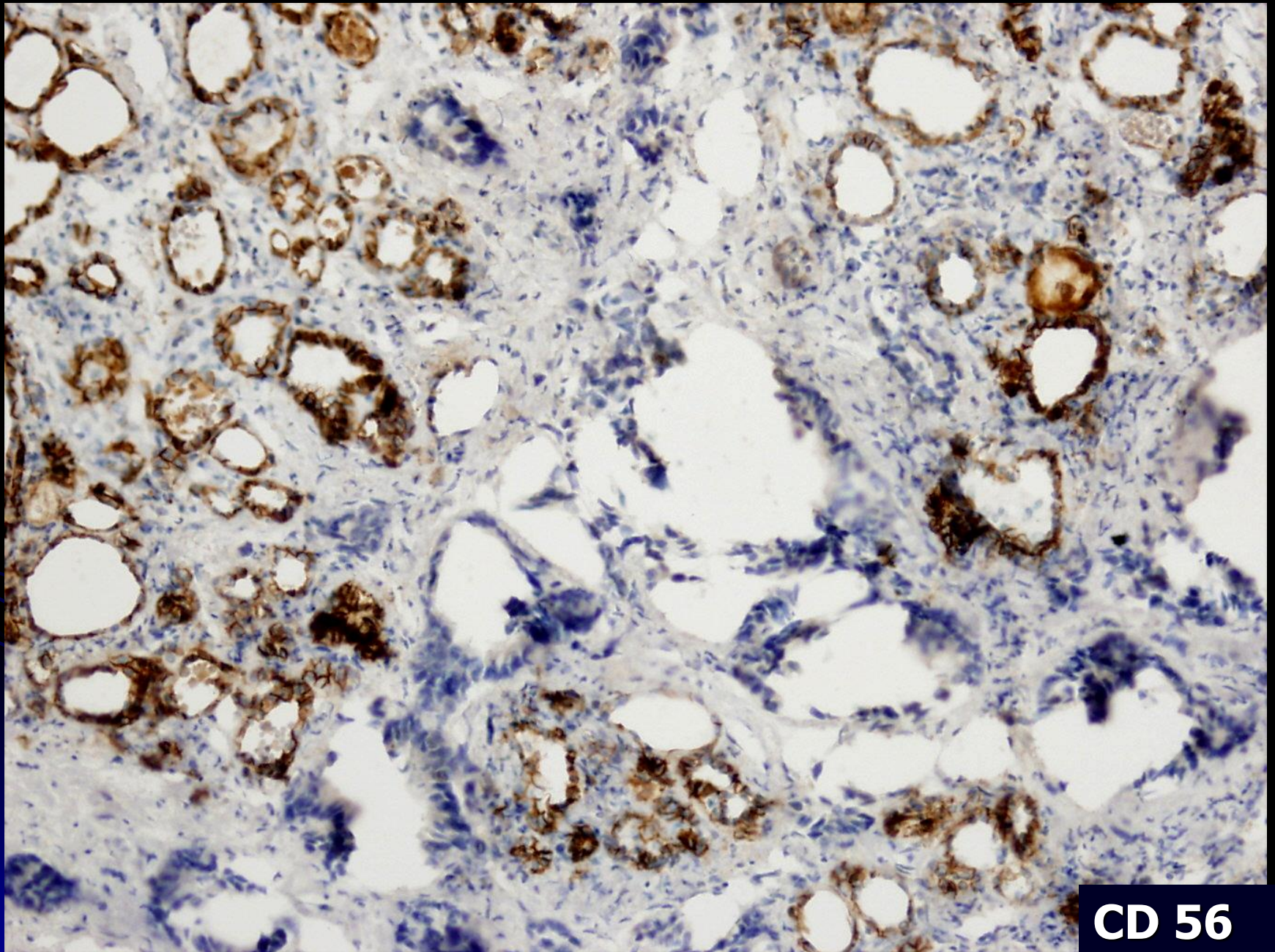


**THG**



**TTF-1**



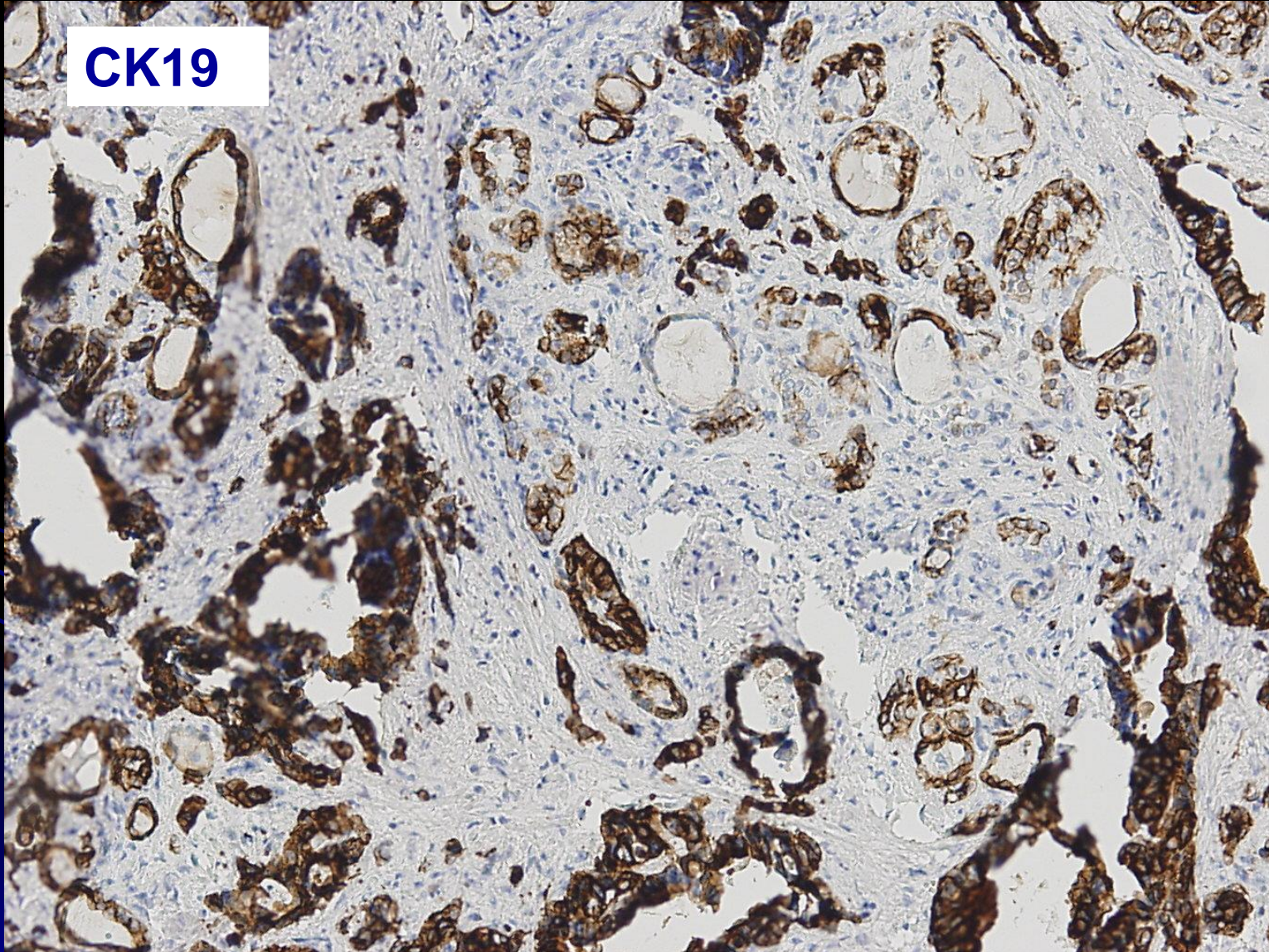


**CD 56**

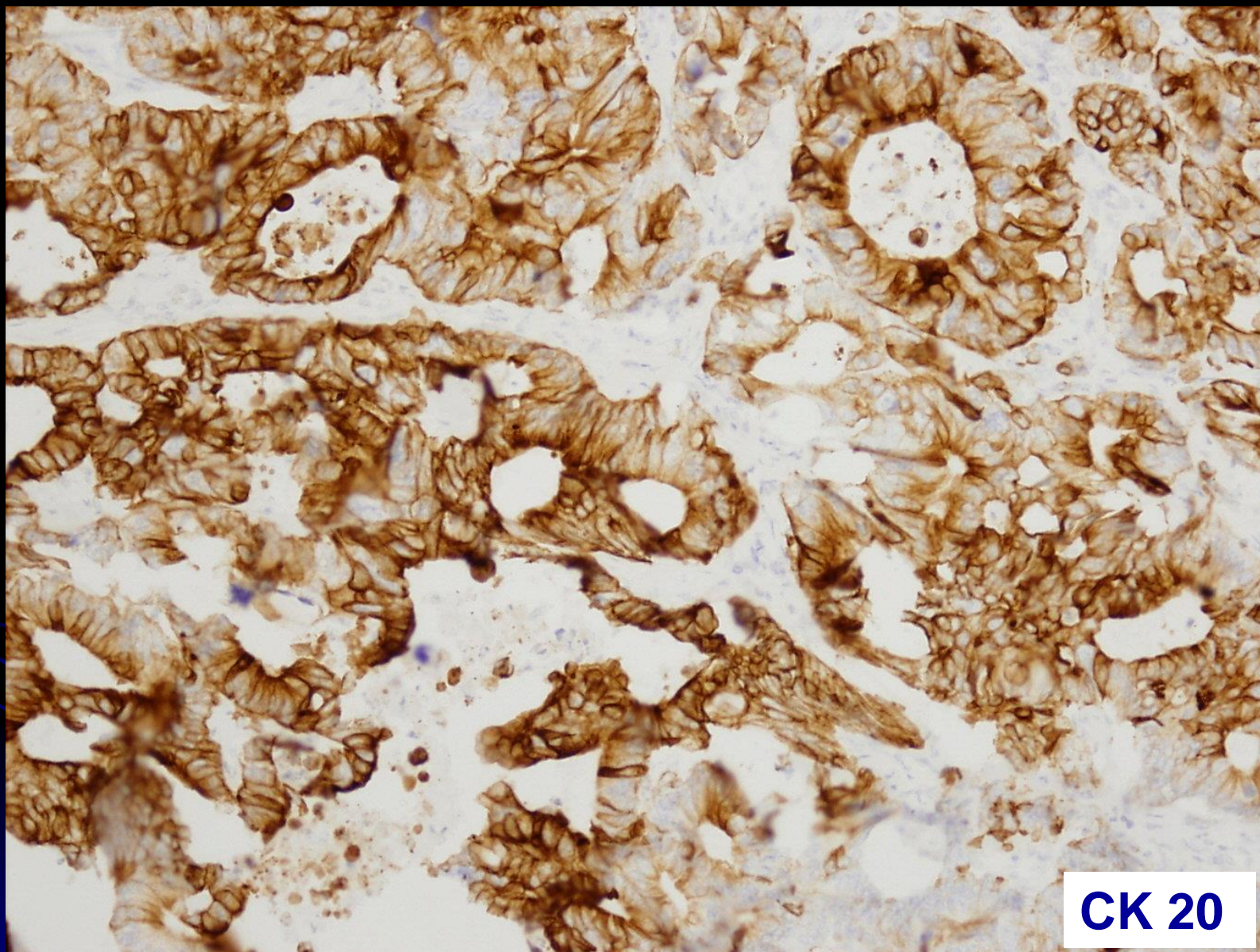


# Pozitivita

CK19



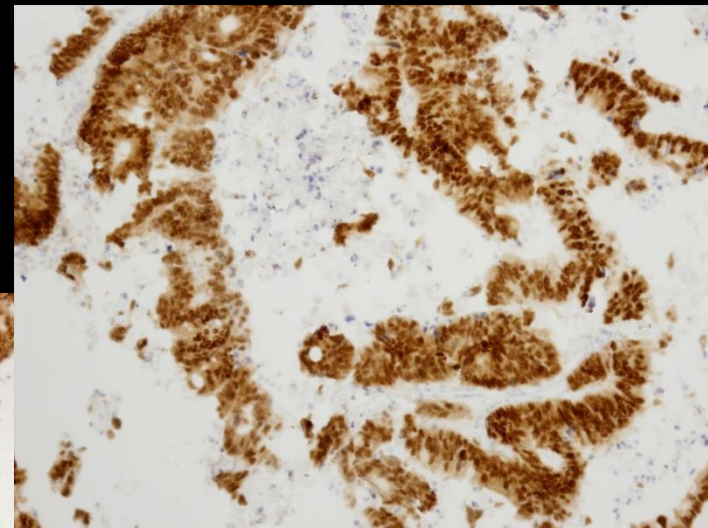
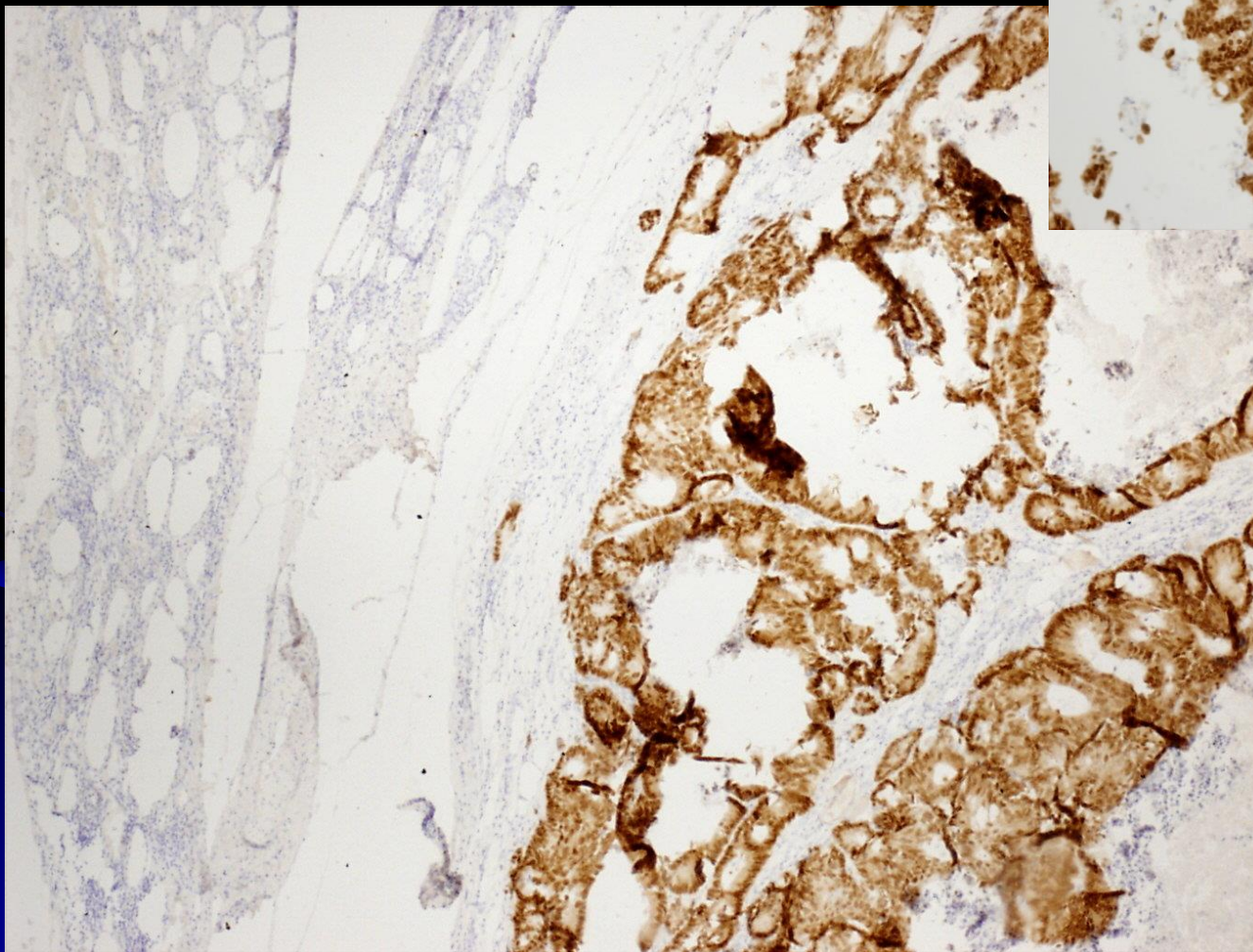




**CK 20**



# CDX2





# Sumarizácia imunoprofilu

- **Pozitivita: CK19, CK20, CDX-2**
- **Negativita: CK7, CD56, THG, TTF-1**



# DIAGNÓZA

**MTS POSTIH OBOCH LALOKOV ŠTÍTNEJ  
ŽLÁZY ADENOKARCINÓMOM  
KOLOREKTÁLNEHO TYPU**



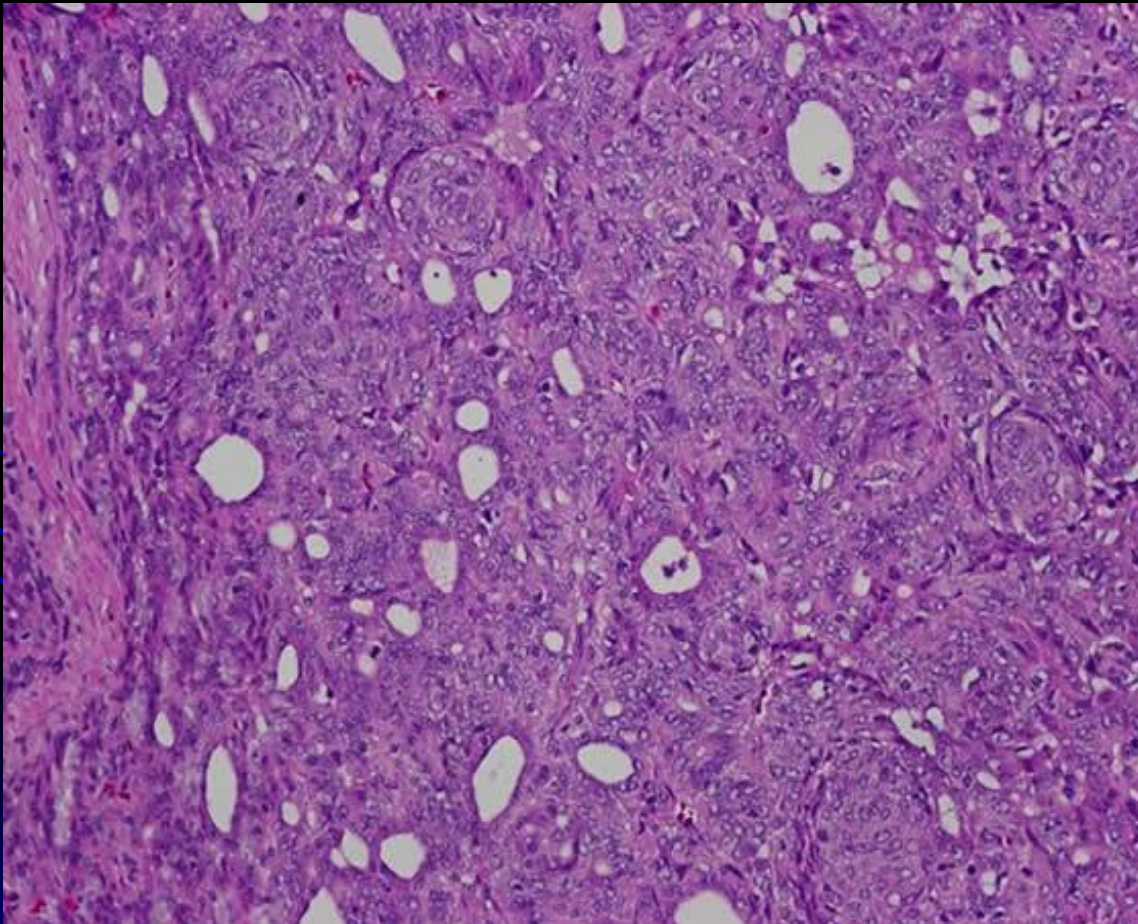
# DIFERENCIÁLNA DIAGNÓZA

- **Kribriformný variant PCa (FAP, Gsy)**
- **Kolumnárny variant PCa**
- **Mucinózny Ca štítnej žľazy (THG+)**



# DIFERENCIÁLNA DIAGNÓZA

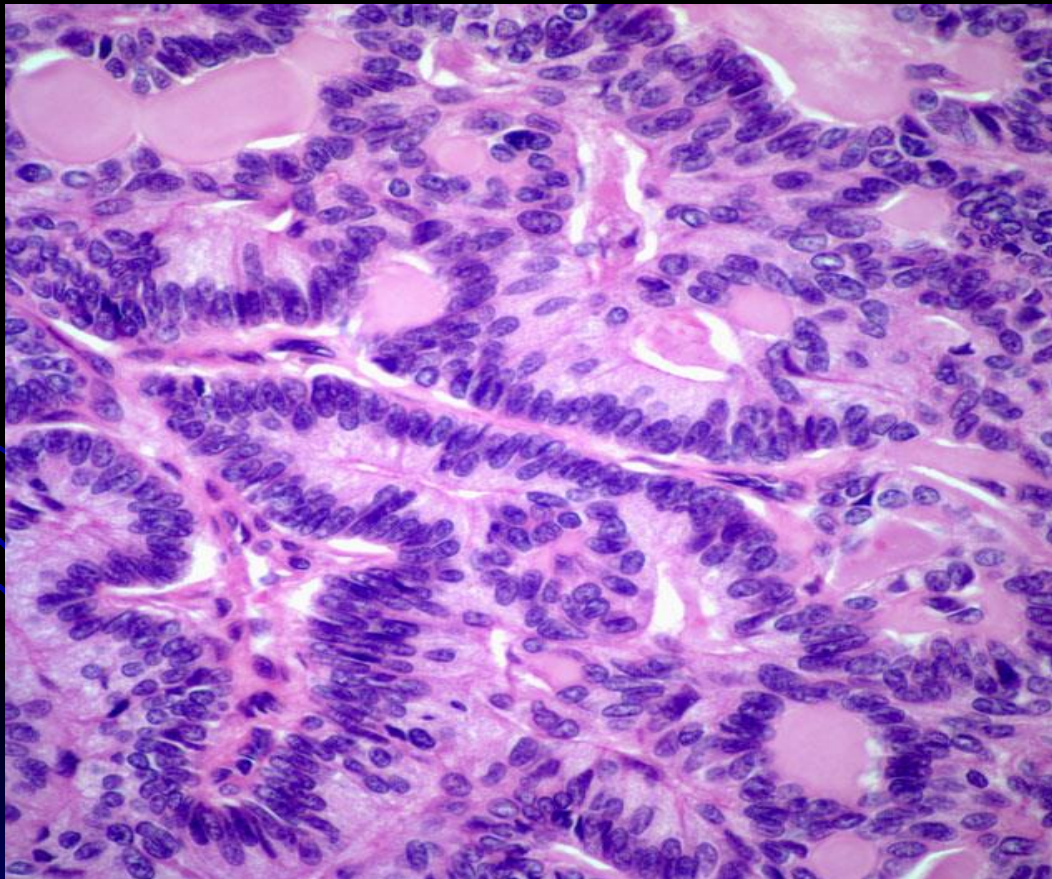
- **Kribriformný variant PCa (FAP, Gsy)**





# DIFERENCIÁLNA DIAGNÓZA

- **Kolumnárny variant PCa**





# DIFERENCIÁLNA DIAGNÓZA

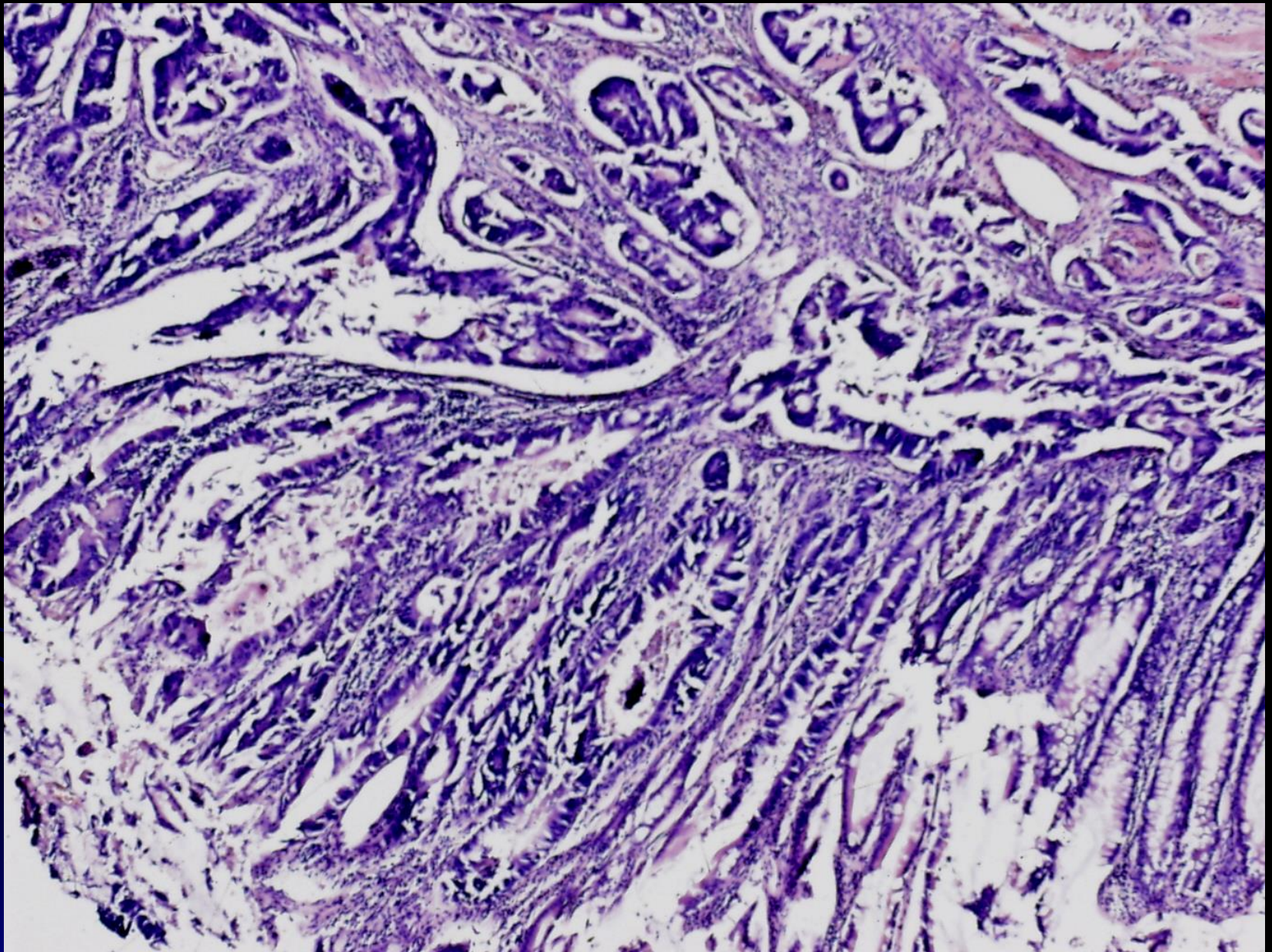
- **Mucinózny Ca (M 8480/3)**
  - extrémne zriedkavý, THG+
  - duálny pôvod buniek z UBT ?
  - mucinózna metaplázia ?
  - agresívny variant PCa ?



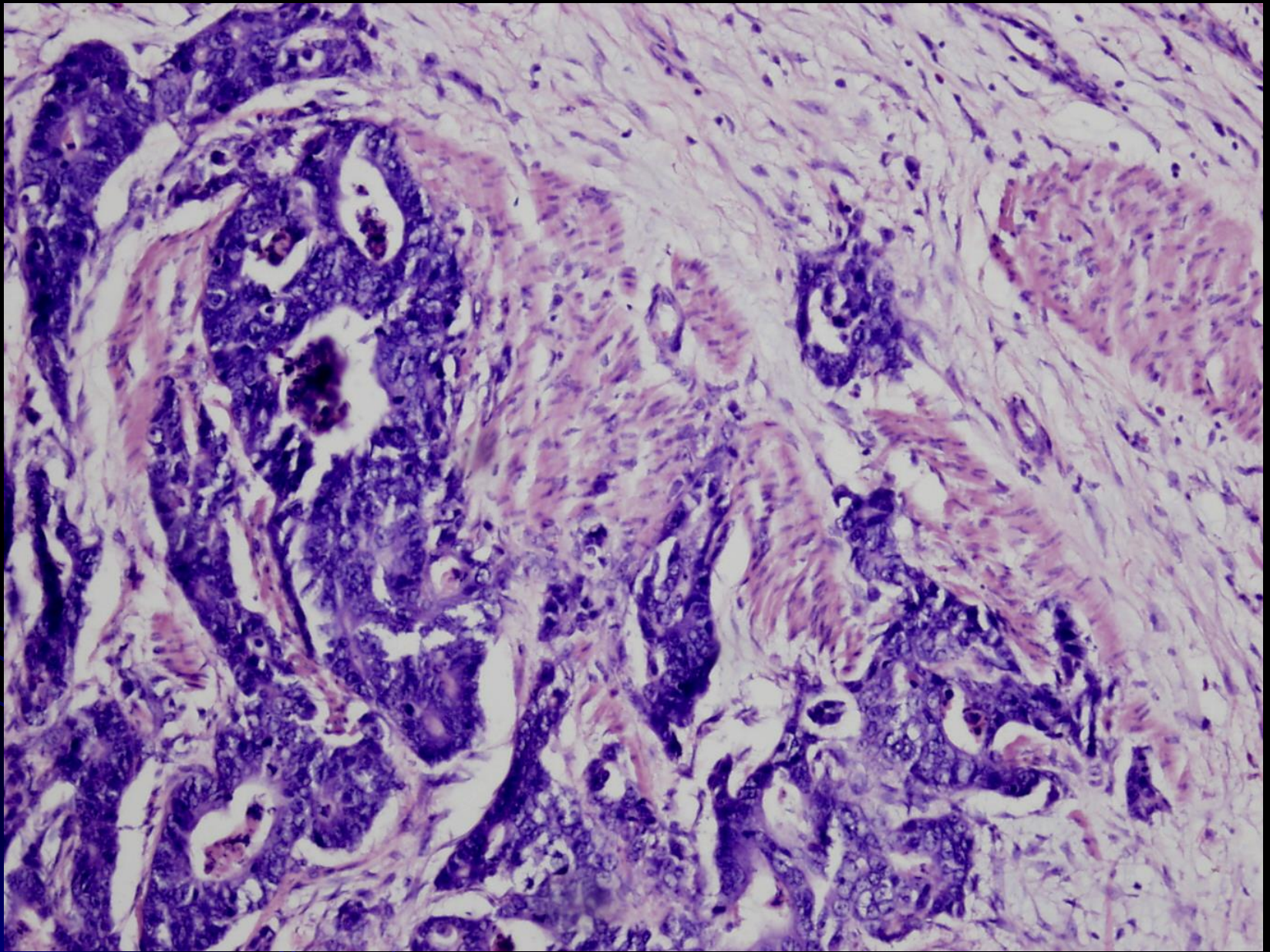
# Follow up

- **Druhá operácia v NsP P.B. urobená 12.8.2013 :**  
**Strednou laparatómiou urobený prístup do dutiny brušnej, cavum peritonei bez výpotku, nález mts v oboch lalokoch pečene, dilatované a distendované kľučky kolon ( v celom rozsahu) s hmatným tumorom parciálne stenotizujúcim kolon v mieste lienálnej flexúry, veľkosti asi 30x40mm, indikujeme rozšírenú pravostrannú hemikolektomiou s anastomózou „side to side“.**

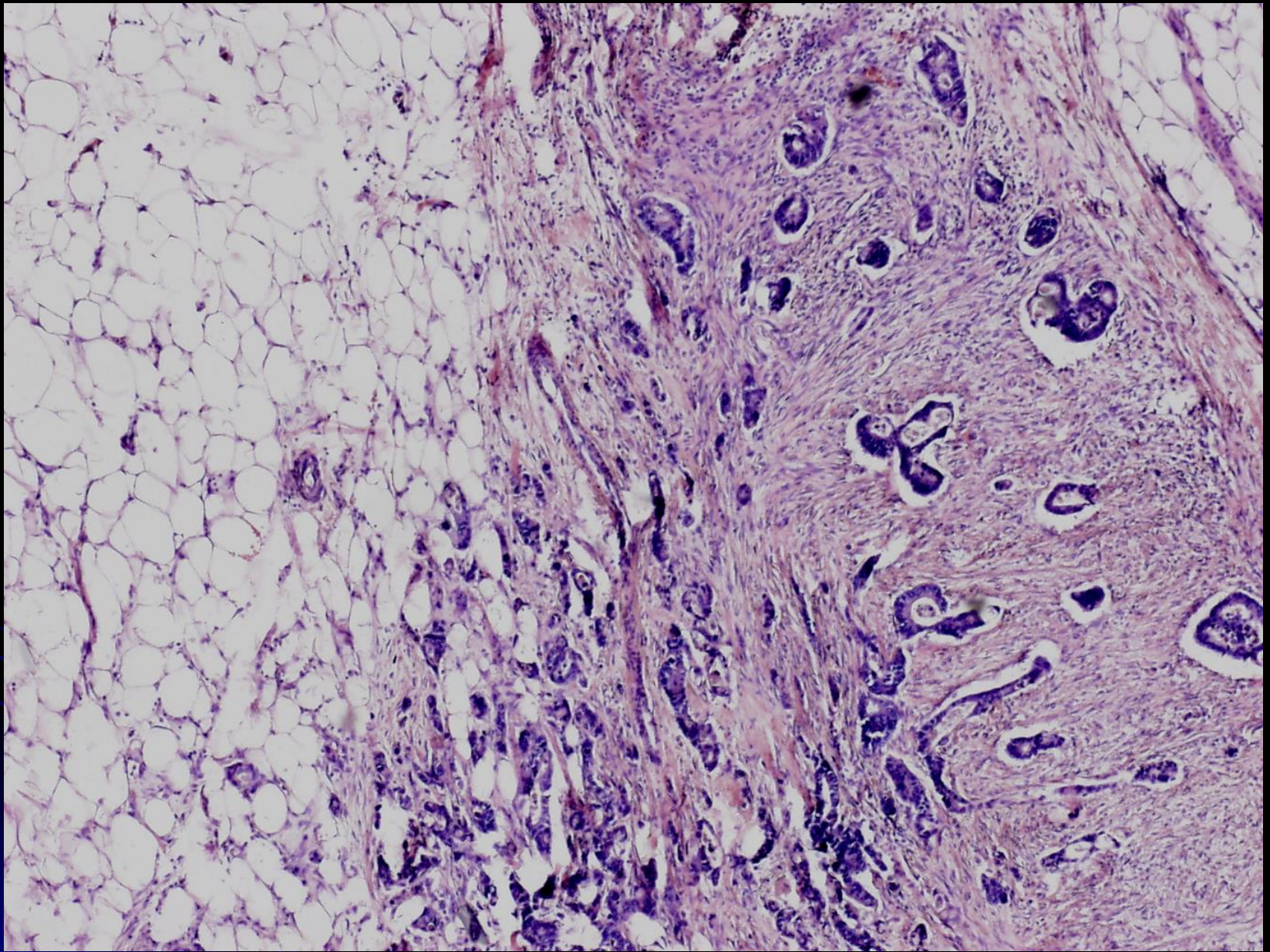














## Case Report

# Metastasis of Colorectal Adenocarcinoma to the Thyroid: A Case Report and Review of the Literature

C. Goatman, P. J. Goldsmith, V. Antonopoulos, and B. Ali

Department of Colorectal Surgery, North Manchester General Hospital, Delaunays Road, Crumpsall M8 5RB, UK

Correspondence should be addressed to C. Goatman, claire.goatman@doctors.net.uk

Received 16 August 2012; Accepted 4 November 2012

Academic Editors: K. W. Lobdell and M. L. Quek

Copyright © 2012 C. Goatman et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Purpose.** We present a rare case of colorectal metastasis to the thyroid five years following primary colonic resection. This case highlights the need to be cognisant of unusual sites of metastasis from colorectal neoplasms. **Case Report.** An 82-year-old male patient had a panproctocolectomy for synchronous colorectal tumours. Five years later he was found to have lung and thyroid metastases found incidentally on imaging for an acute presentation with small bowel obstruction. **Conclusion.** Metastases to the thyroid should be considered in the differential diagnosis of the thyroid lesion with any history of malignancy, particularly with increasing patient age and when renal cell carcinoma or lung, colon, or breast primaries are involved.

# Metachronous thyroid metastasis of primary rectal adenocarcinoma

## Case Report

Raffaele Longo<sup>1,\*</sup>, Francesco Torino<sup>1</sup>, Roberta Sarmiento<sup>1</sup>, Domenico Gattuso<sup>1</sup>, Cinzia Bernardi<sup>2</sup>, Giampietro Gasparini<sup>1</sup>

<sup>1</sup>Division of Medical Oncology, "San Filippo Neri" Hospital Rome, Italy

<sup>2</sup>Division of Anathomy & Pathology, "San Filippo Neri" Hospital Rome, Italy

\*Correspondence: Raffaele Longo, MD, Division of Medical Oncology "San Filippo Neri" Hospital, Via Martinotti 20, 00135 Rome, Italy; Tel: +39-06-33062272; Fax: +39-06-33062414; E-mail: rafiongo@libero.it

**Key words:** Colorectal cancer, Thyroid metastasis, chemotherapy

**Abbreviations:** 5-fluorouracil, (5-FU); leucovorin, (LV)

Received: 17 June 2008; Revised: 23 June 2008

Accepted: 26 June 2008; electronically published: July 2008

## Summary

Thyroid metastases occur frequently from lung, breast and renal cancer, with an overall incidence of 1.25% to 24.2% reported in autopsy studies (Shimooka et al, 1961; Czech et al, 1982). Only a few cases of colorectal cancer metastatic to the thyroid have been reported to date. We describe the case of a 60-year old man who underwent right hemithyroidectomy with laterocervical lymph node dissection for a thyroid metastasis from a previous rectal adenocarcinoma surgically treated 11 years before.

# World Journal of Surgical Oncology



## Open Access

## Case report

# Metastatic colorectal cancer to a primary thyroid cancer Martin H Cherk<sup>\*1</sup>, Maggie Moore<sup>2</sup>, Jonathan Serpell<sup>3</sup>, Sarah Swain<sup>4</sup> and Duncan J Topliss<sup>5</sup>

Address: <sup>1</sup>Department of Nuclear Medicine, the Alfred Hospital, Commercial Road, Melbourne Victoria 3004, Australia, <sup>2</sup>Department of Medical Oncology, the Alfred Hospital, Commercial Road, Melbourne Victoria 3004, Australia, <sup>3</sup>Department of Surgery, the Alfred Hospital, Commercial Road, Melbourne Victoria 3004, Australia, <sup>4</sup>Department of Anatomical Pathology, the Alfred Hospital, Commercial Road, Melbourne Victoria 3004, Australia and <sup>5</sup>Department of Endocrinology and Diabetes, the Alfred Hospital, Commercial Road, Melbourne Victoria 3004, Australia

Email: Martin H Cherk<sup>\*</sup> - m\_cherk@yahoo.com.au; Maggie Moore - Maggie.moore@alfred.org.au; Jonathan Serpell - jonathan.serpell@alfred.org.au; Sarah Swain - S.swain@alfred.org.au; Duncan J Topliss - D.topliss@alfred.org.au

\* Corresponding author

Published: 11 November 2008

World Journal of Surgical Oncology 2008, 6:122 doi:10.1186/1477-7819-6-122

This article is available from: <http://www.wjso.com/content/6/1/122>

© 2008 Cherk et al; licensee BioMed Central Ltd. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/2.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: 22 August 2008

Accepted: 11 November 2008

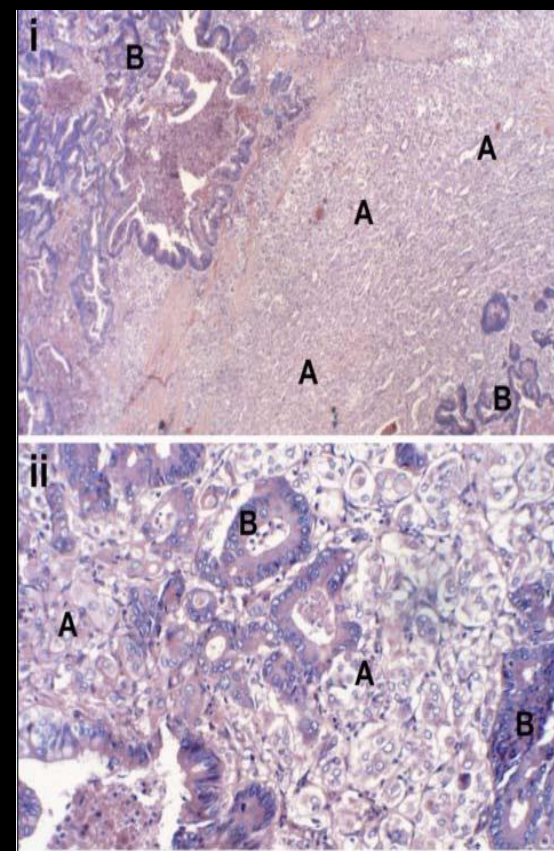
## Abstract

**Background:** Metastatic malignancy to the thyroid gland is generally uncommon due to an unfavourable local thyroid micro-environment which impairs the ability of metastatic cells to settle and thrive. Metastases to the thyroid gland have however been reported to occur occasionally particularly if there has been disruption to normal thyroid tissue architecture.

**Case presentation:** We report a patient with a history of surgically resected rectal adenocarcinoma who presents with a rising serum CEA level and an <sup>18</sup>F-FDG PET scan positive thyroid nodule which was subsequently confirmed at surgery to be a focus of metastatic rectal adenocarcinoma within a primary poorly differentiated papillary thyroid carcinoma.

Subsequent treatment involved right hemi-thyroidectomy, pulmonary wedge resection of oligometastatic metastatic colorectal cancer and chemotherapy.

**Conclusion:** Metastatic rectal carcinoma to the thyroid gland and in particular to a primary thyroid malignancy is rare and unusual. Prognosis is likely to be more dependent on underlying metastatic disease rather than the primary thyroid malignancy hence primary treatments should be tailored towards treating and controlling metastatic disease and less emphasis placed on the primary thyroid malignancy.





# Metastatic Colon Cancer to the Thyroid Gland in the Setting of Pathologically Diagnosed Papillary Thyroid Cancer: A Review and Report of a Case

Lee F. Starker<sup>a,\*</sup>, Flavio Paterno<sup>a</sup>, Peyman Bjorklund<sup>a</sup>, Dennis Wasson<sup>b</sup>, Nabil Atweh<sup>b</sup>

## Abstract

Colon carcinoma metastases to the thyroid are a rare phenomena. Here we report a case of multiple malignant neoplasms where an incidental diagnosis of colon cancer was made after pathologic evaluation of the thyroid specimen.

**Keywords:** Thyroid cancer; Thyroid metastases; Colonic metastases; Papillary cancer

## Introduction

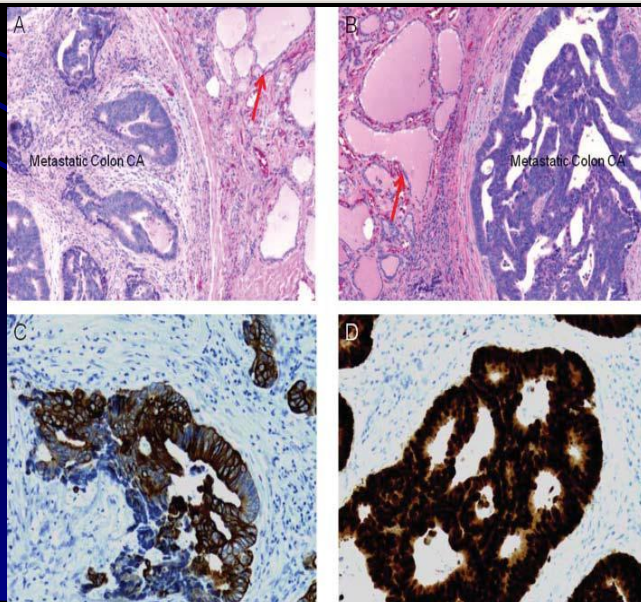
Thyroid cancer has previously been identified as a primary disease. Autopsy studies have demonstrated that metastatic neoplasms to the thyroid are common [1]. The incidence of metastatic disease in autopsy specimens has been reported to range from 1.25% up to a staggering 24% in a selected patient population who expired from widely metastatic disease [2-5]. Although metastatic disease can be present in various settings within the thyroid gland, these metastatic foci only account for 2% - 3% of all clinical cases of thyroid cancer [6]. Autopsy studies provide us with new evidence that a multitude of neoplasms metastasize to the thyroid gland including renal cell, lung and breast carcinomas. Colon

a case of metastatic colon carcinoma to the thyroid within a cytologically and histopathologically diagnosed papillary thyroid cancer.

## Case Report

A 66-year-old Caucasian male presented with a palpable, painless slowly growing mass in the left side of the neck. He denied any local or systemic symptoms of thyroid dysfunction or neck compression. He did not report any history of radiation to the neck. His past medical history was remarkable for hypertension, hypercholesterolemia, and benign vocal cord polyps. He was taking verapamil, hydrochlorothiazide, atorvastatin and aspirin. He admitted to smoking 2 packs of cigarettes a day for 40 years and was a habitual alcohol user. Clinical examination revealed a firm, palpable, nontender nodule in the left lobe of the thyroid gland measuring 2.5 cm in diameter. The nodule was mobile upon swallowing. No palpable cervical nodes were appreciated. The rest of physical exam was unremarkable.

A thyroid ultrasound demonstrated multiple thyroid nodules within both thyroid lobes. The largest was in the left lobe, measuring 2.5 x 2.1 x 1.1 cm, and was hypoechoic and heterogeneous in nature. Fine-needle aspiration cytology was consistent with papillary thyroid carcinoma. Thyroid function tests at that time were normal.



## Metastatic Colon Cancer to the Thyroid Gland

The most common initial metastatic location of colorectal cancer is the locoregional lymph nodes followed by the liver and the lungs. Seeding of the thyroid gland requires bypassing the portal circulation and entering into the systemic circulation. The exact mechanism of how metastases from colorectal cancer reach the thyroid gland is unclear. One may hypothesize that these cancers reach the thyroid because of their aggressive natures. Our patient did not seem to fit into the aggressive category compared to other patients with the same diagnosis. However, the thyroid with its rich blood flow of 560 ml/100g tissue/min [8] may be a logical location where these metastatic lesions could lodge. This high metabolic demand seems to be both protective and detrimental. It allows the gland to come in direct contact with blood borne neoplastic cells, leading to the potential for seeding. Alternatively, the high volume of blood flow through the gland potentially may lead to an immunoprotective environment in the thyroid, compared to the liver and lungs [15]. Yet, most of these metastases to the thyroid tend to remain subclinical or small in size compared to liver and lung metastases, which brings up the hypothesis that the thyroid environment is not as hospitable for the growth of metastatic neoplastic cells when compared to the liver and lungs. This may explain the disparity in low numbers of patients presented in the literature with a diagnosis of metastatic disease to the thyroid compared to autopsy results (1% - 3%) [6, 16]. Metastatic disease to the thyroid is believed to be a late event, almost always diagnosed years after the diagnosis of the initial primary disease [17]. Ozin et al described a patient who had widely metastatic disease of the colon (stage IV) with large lesions within the hepatic parenchyma and only microscopic metastases to the thyroid gland [18]. Poon et al described a patient with primary colon carcinoma and metastases to the thyroid leading to locally compressive symptoms in the neck and ultimately leading to the overall demise of the patient [19]. Youn et al described a patient with colonic adenocarcinoma who had thyroid metastases diagnosed after developing clinical hypothyroidism [20].



# DISKUSIA

- metastázy v š.ž. predstavujú cca 1- 3%
- najčastejšie RCC, potom CRC, pľúca, prsník, ...
- patogenéza je nejasná – protektívny účinok vysokého prietoku krvi a mikroprostredia ?



# TAKE HOME MESSAGE

- MTS CRC do štítnej žľazy sú v biopsii zriedkavé
- „nodózna struma“ však môže byť prvým prejavom CRC !
- patogenéza je nejasná, imunohistochemia nevyhnutná
- patológ musí byť pripravený na všetko ...



# POĎAKOVANIE



*MUDr. František Koyš*

*Zemrel 14. 9. 2013 vo veku 66 rokov*

**Ďakujem za pozornosť**