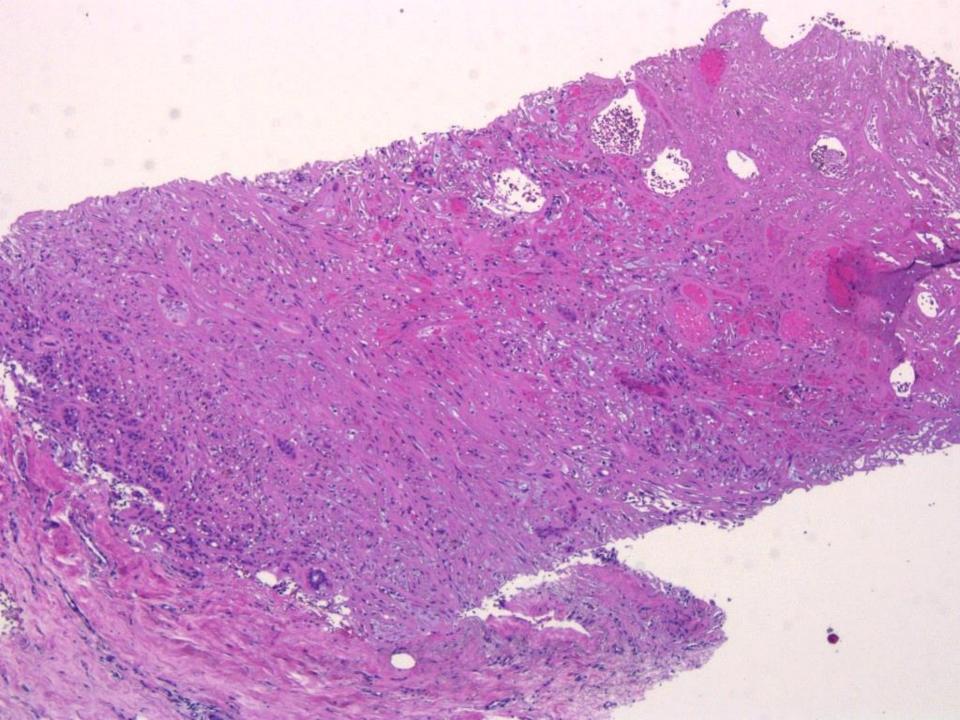
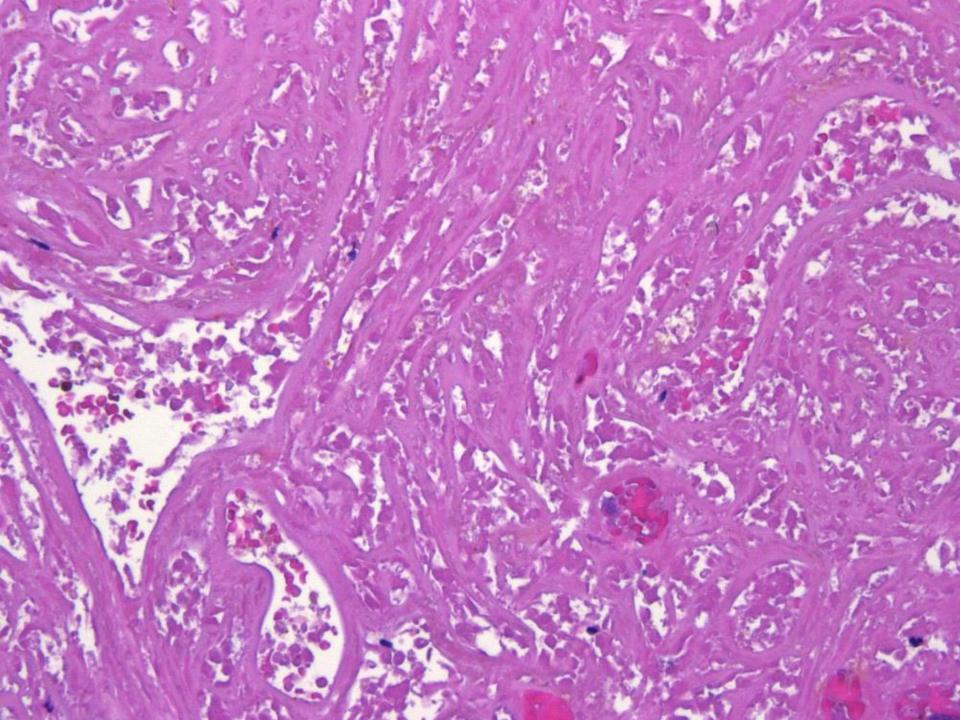
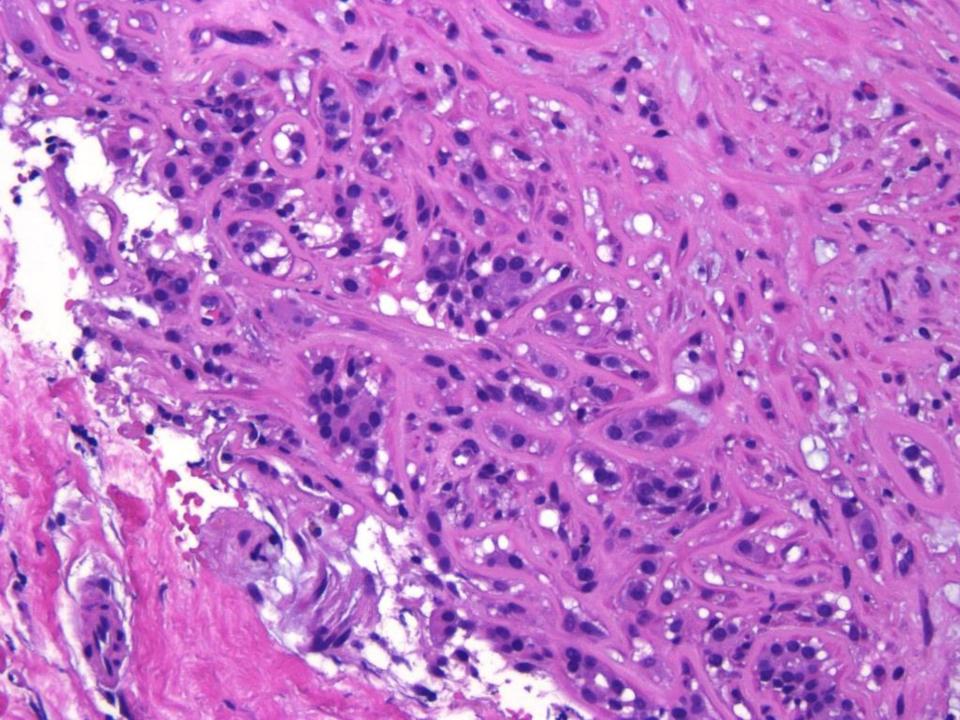
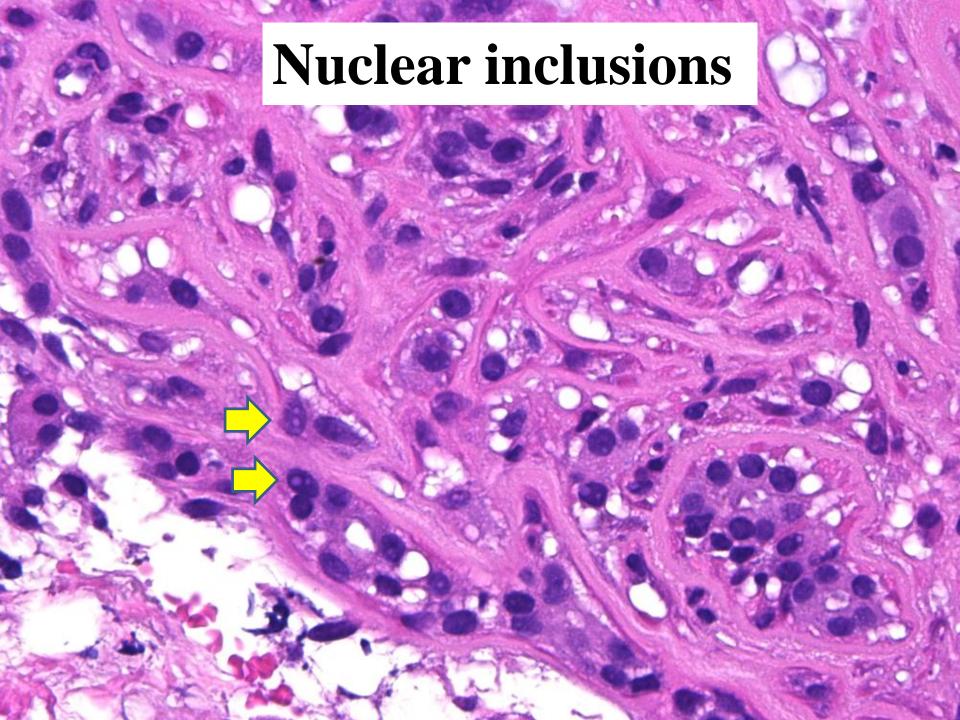
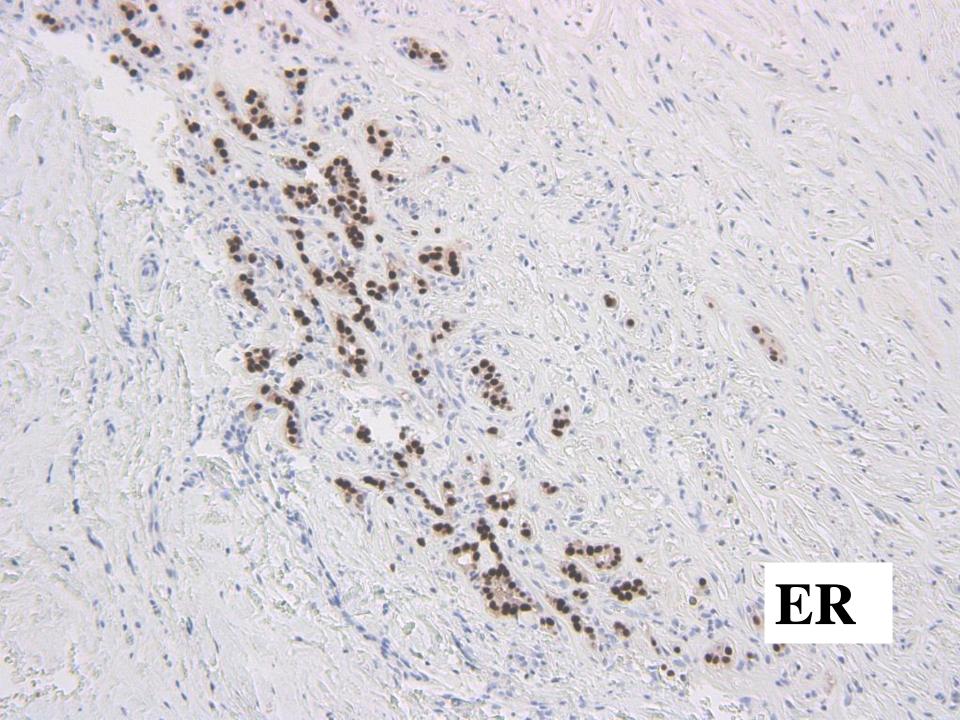
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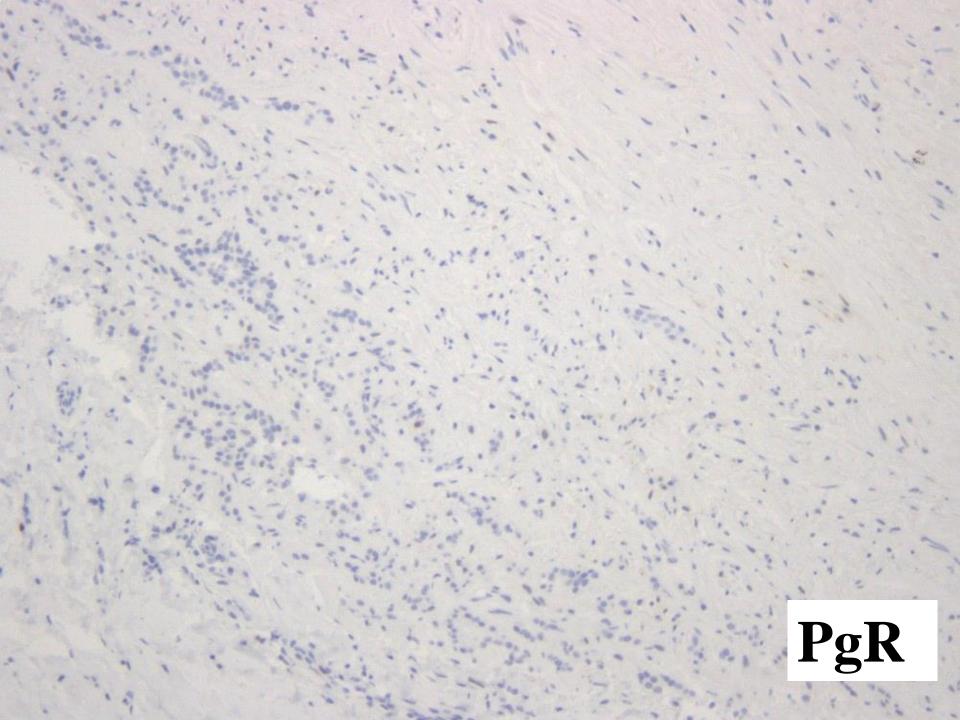


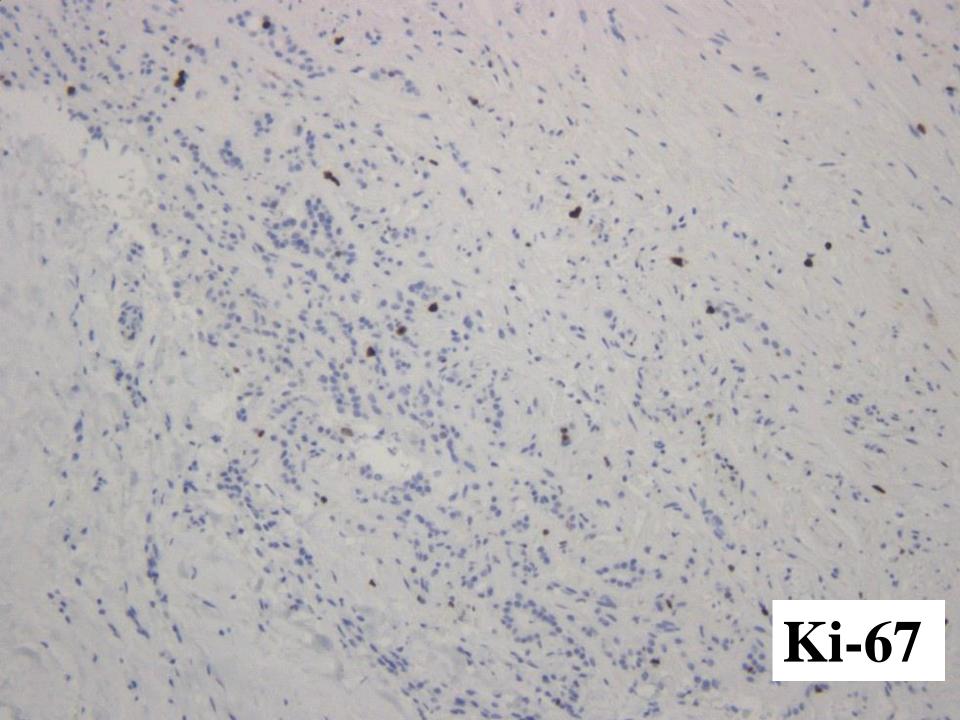


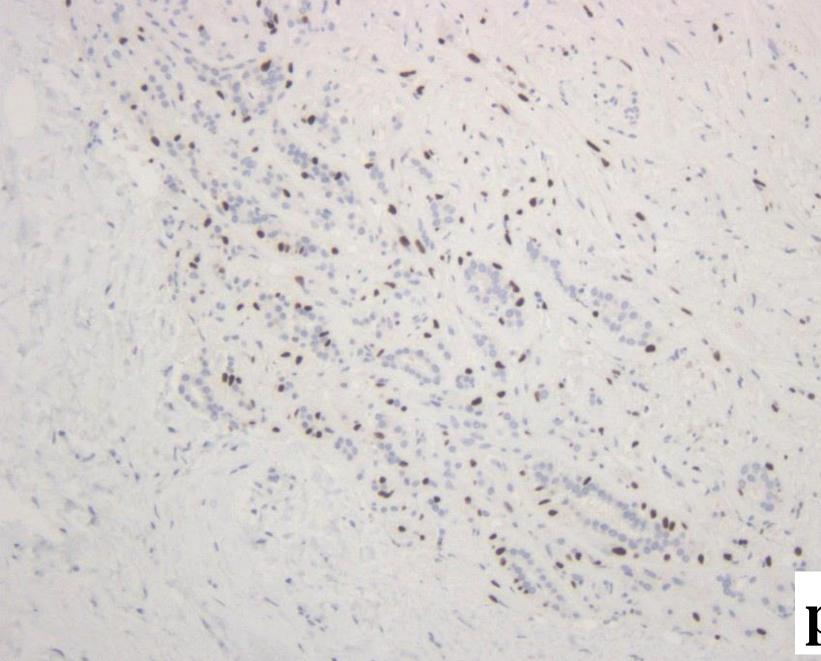


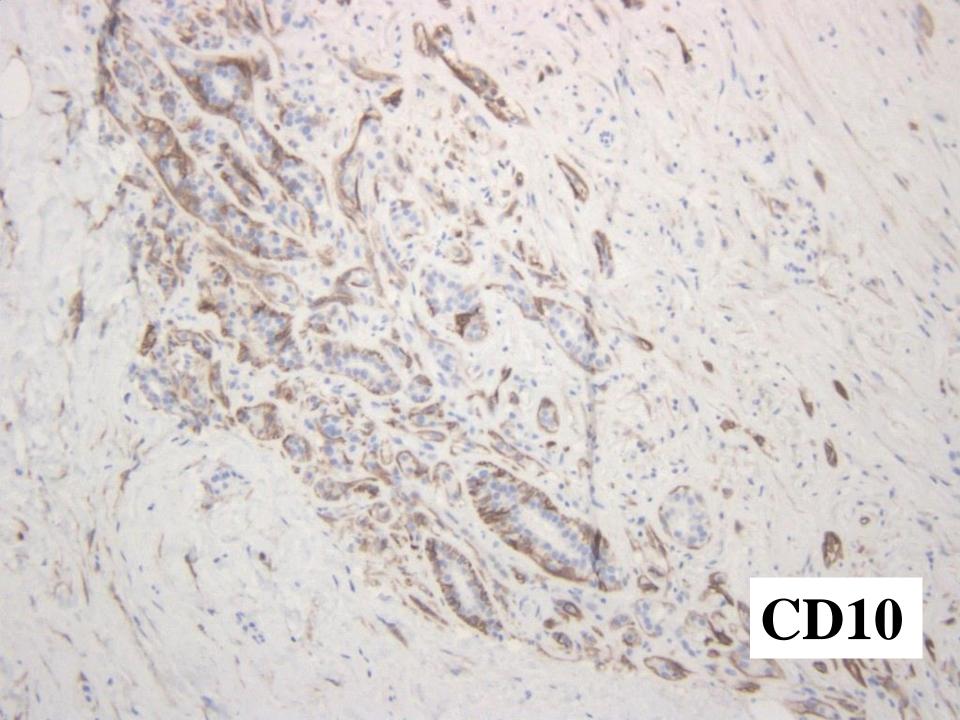


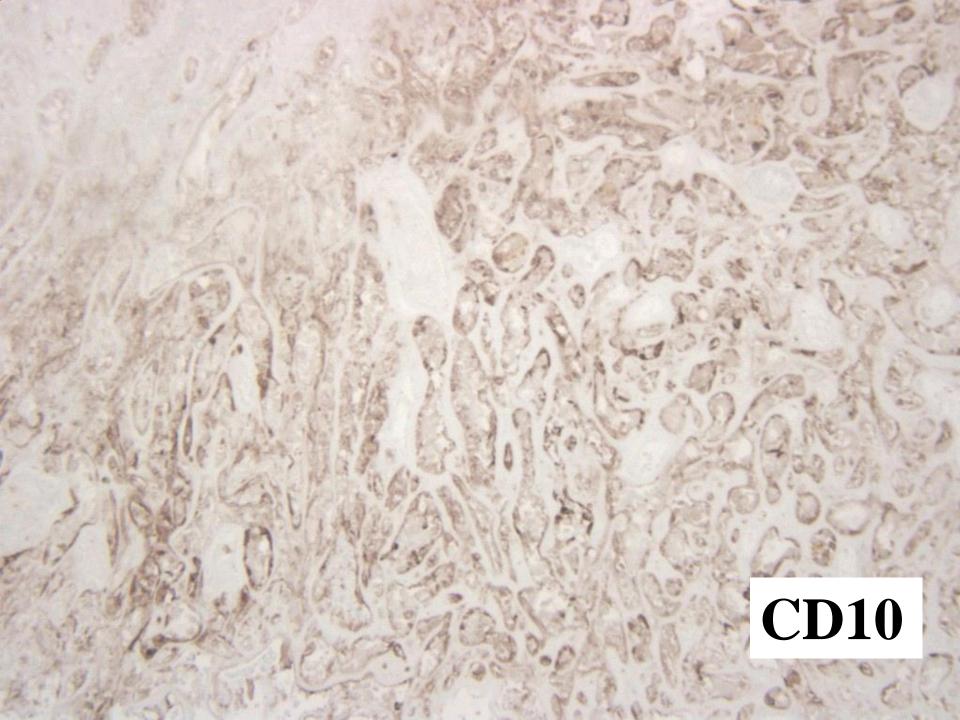


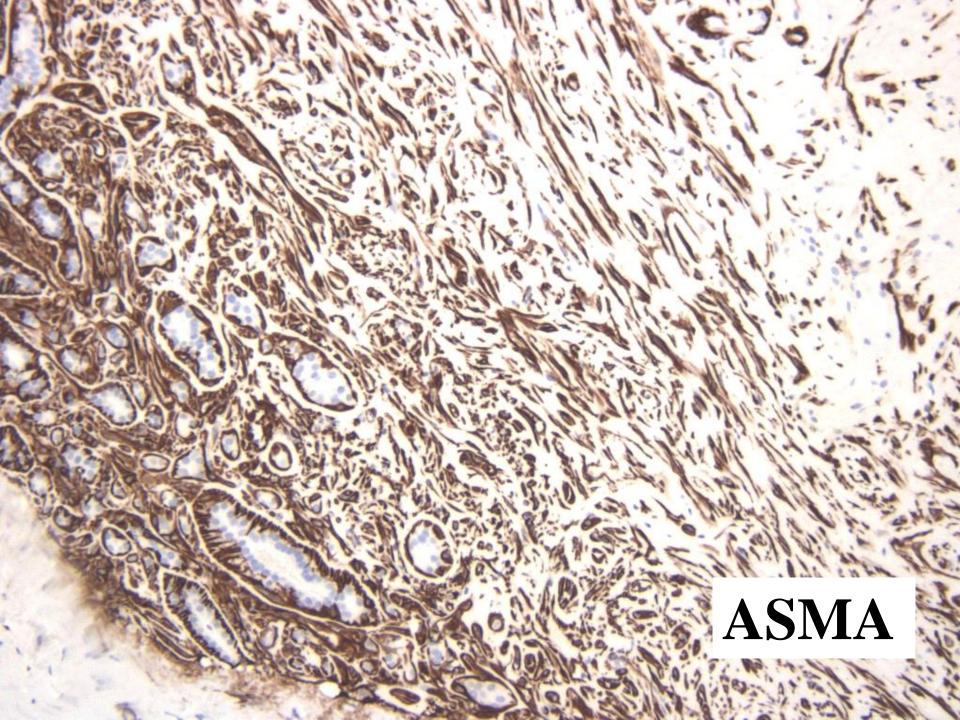






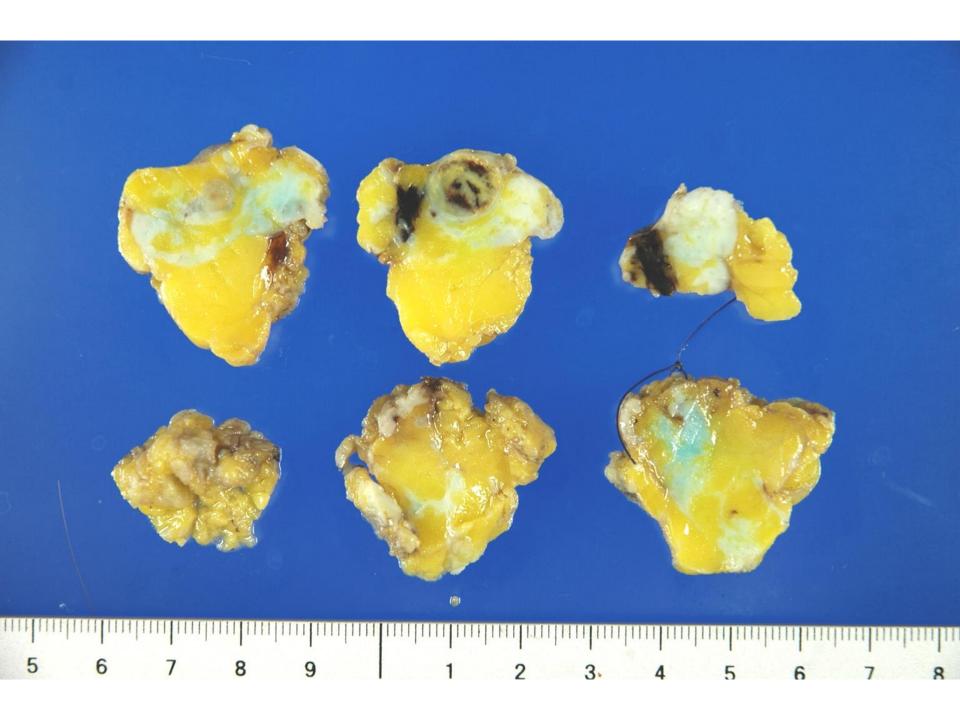


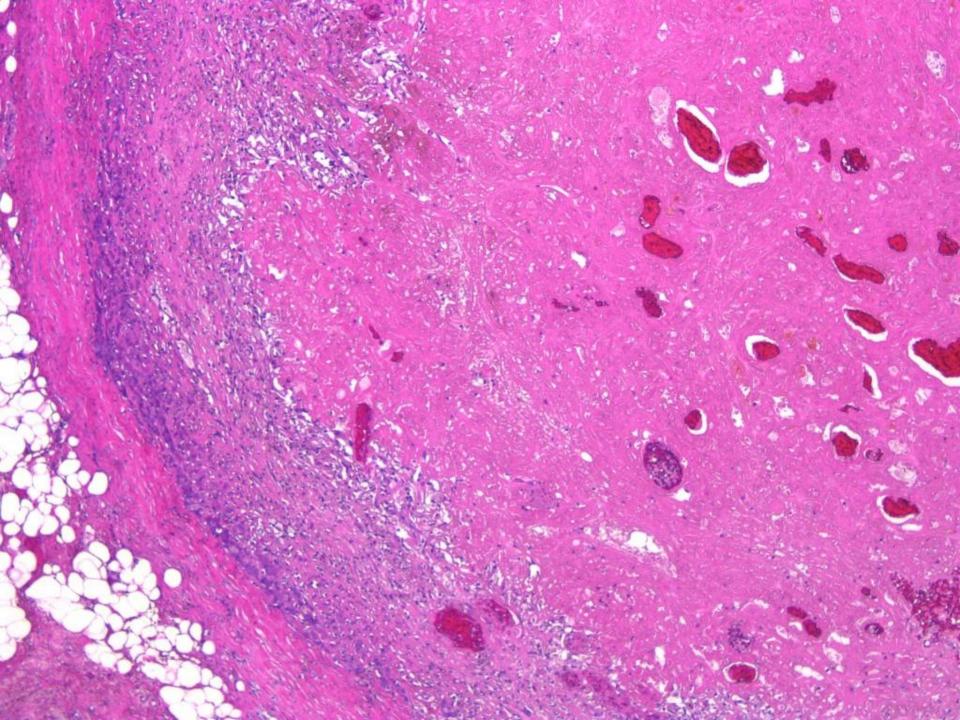


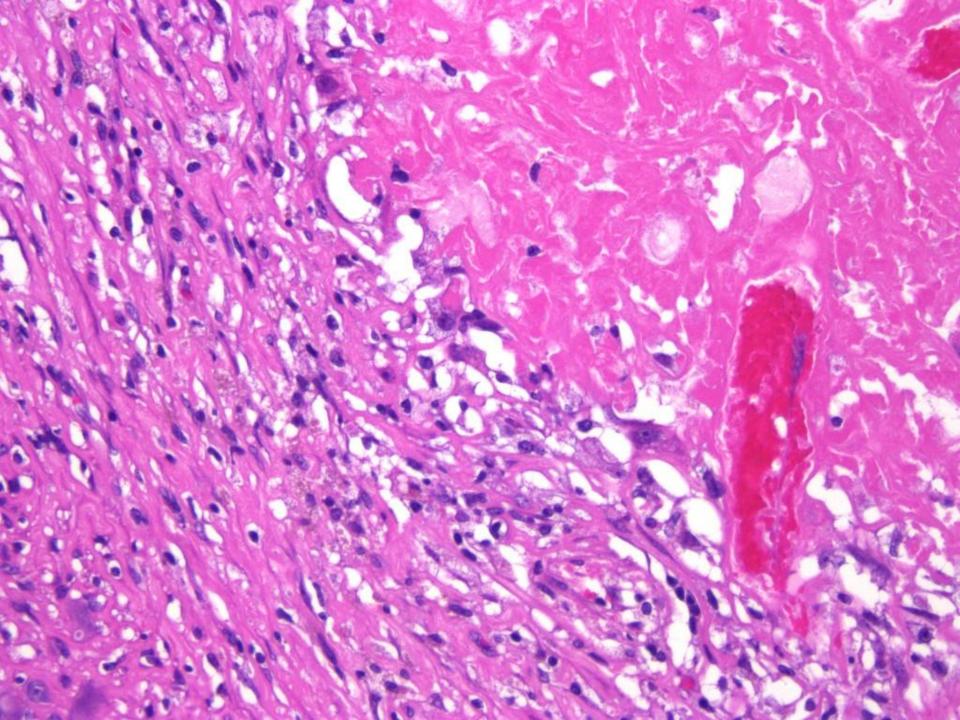


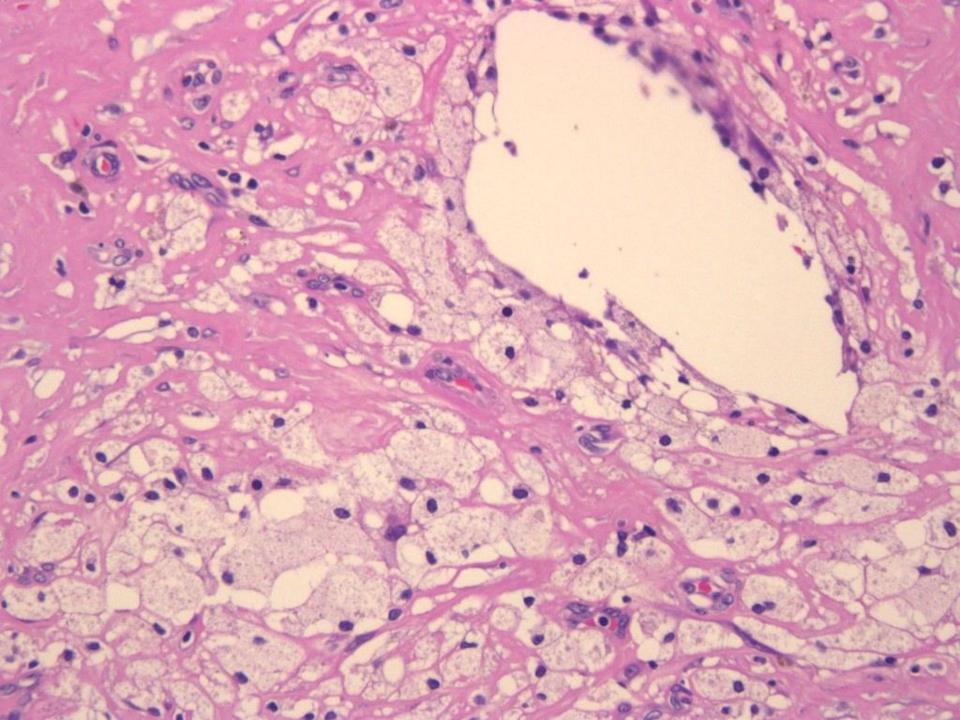
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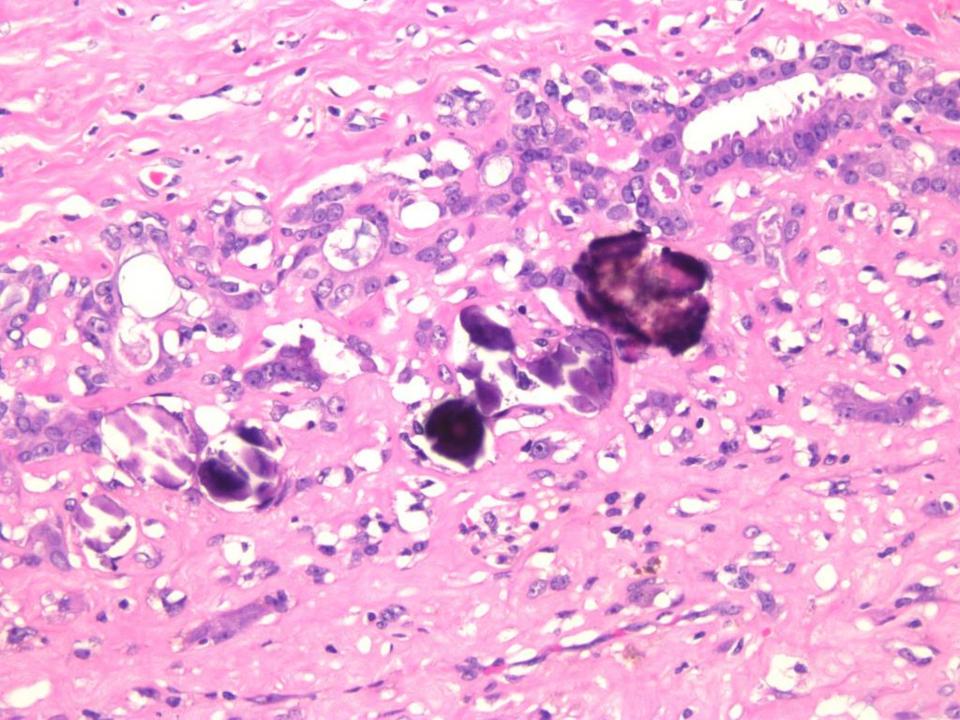


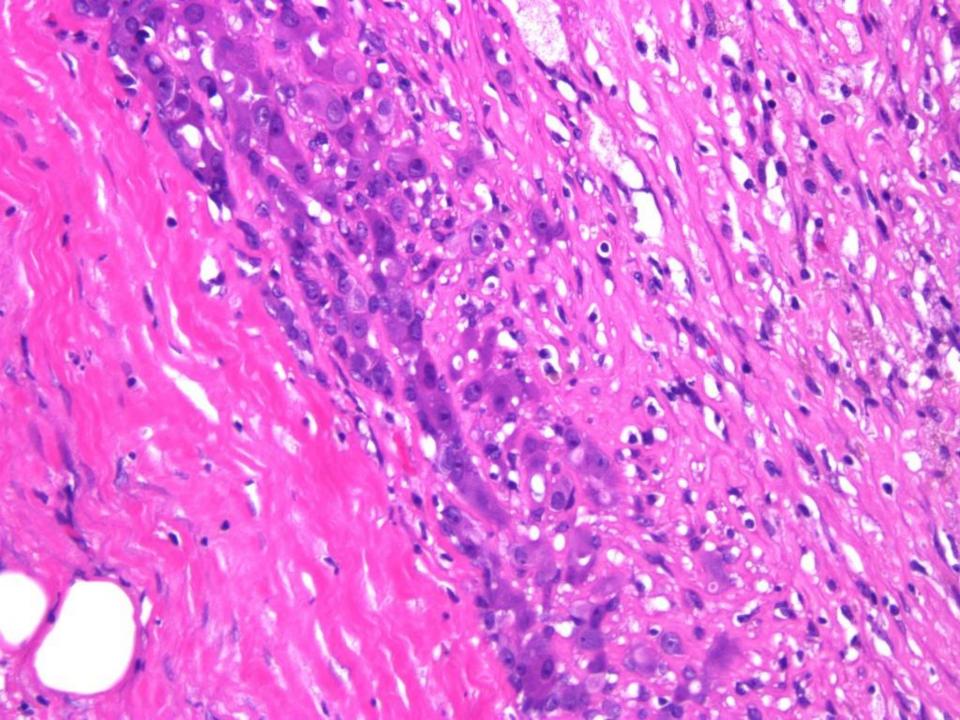


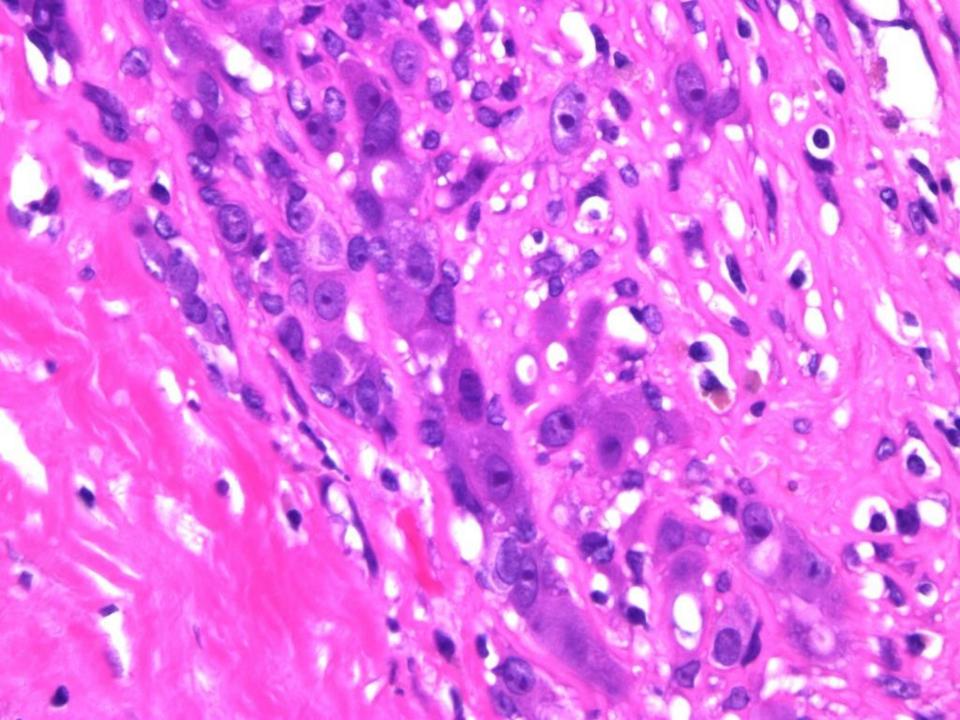


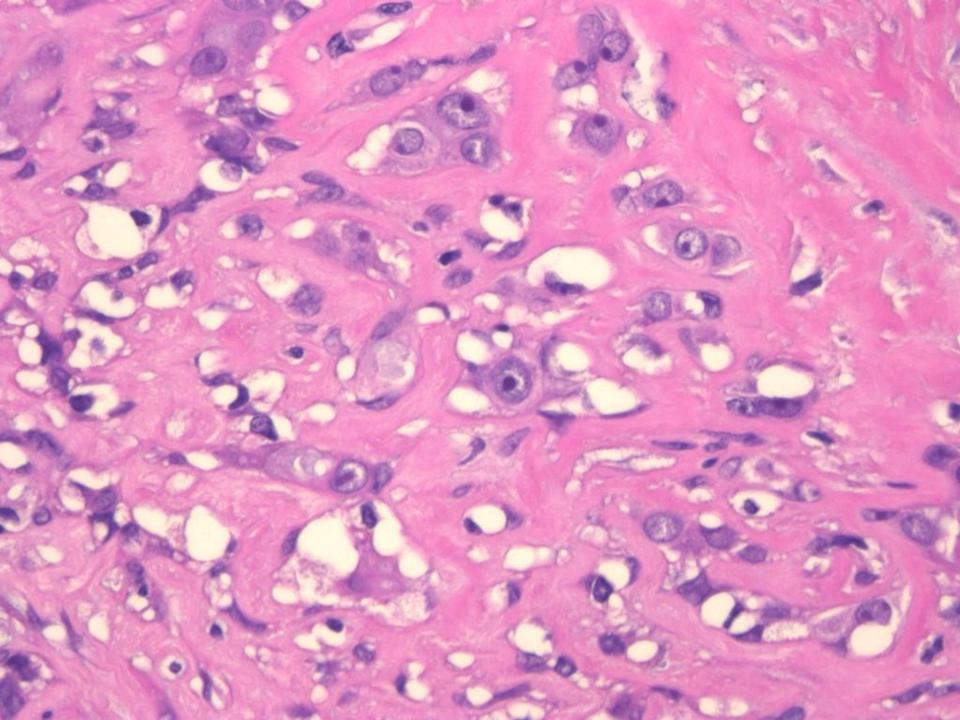


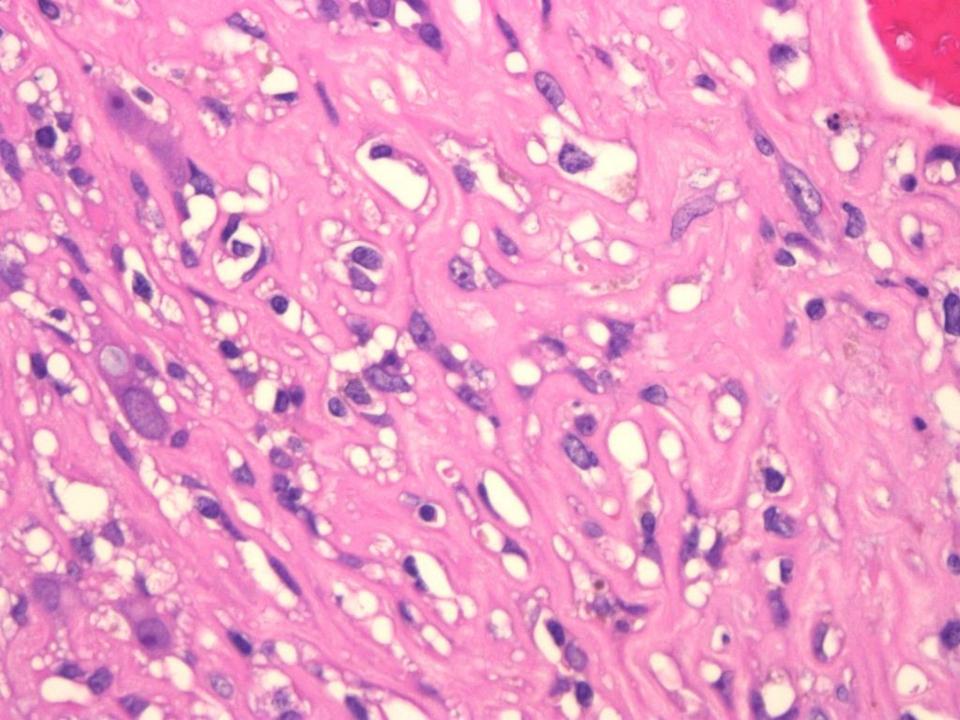


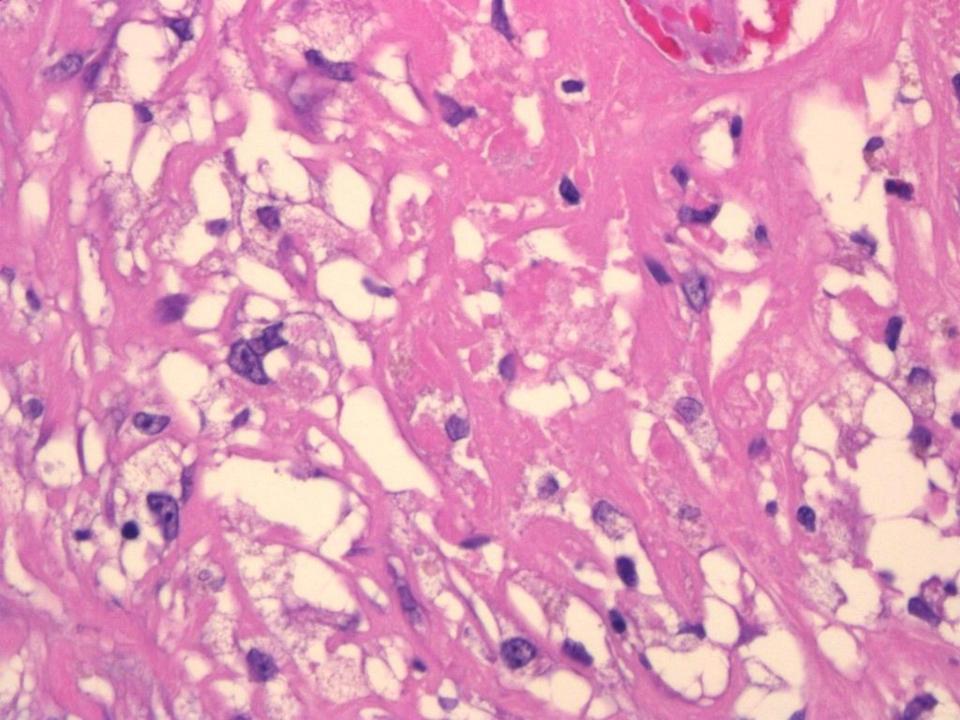


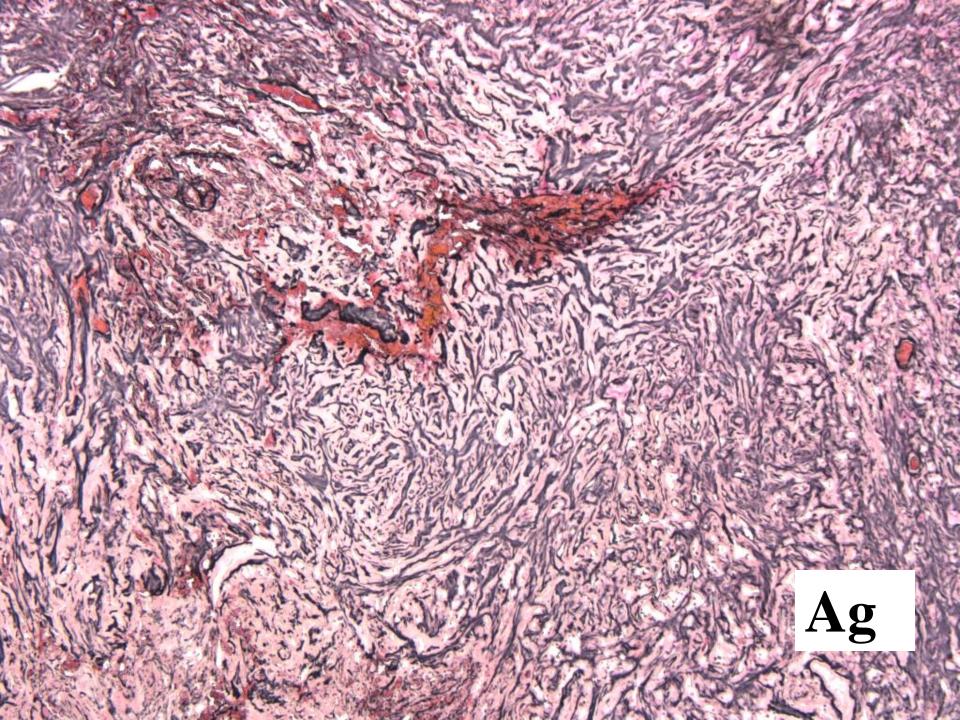


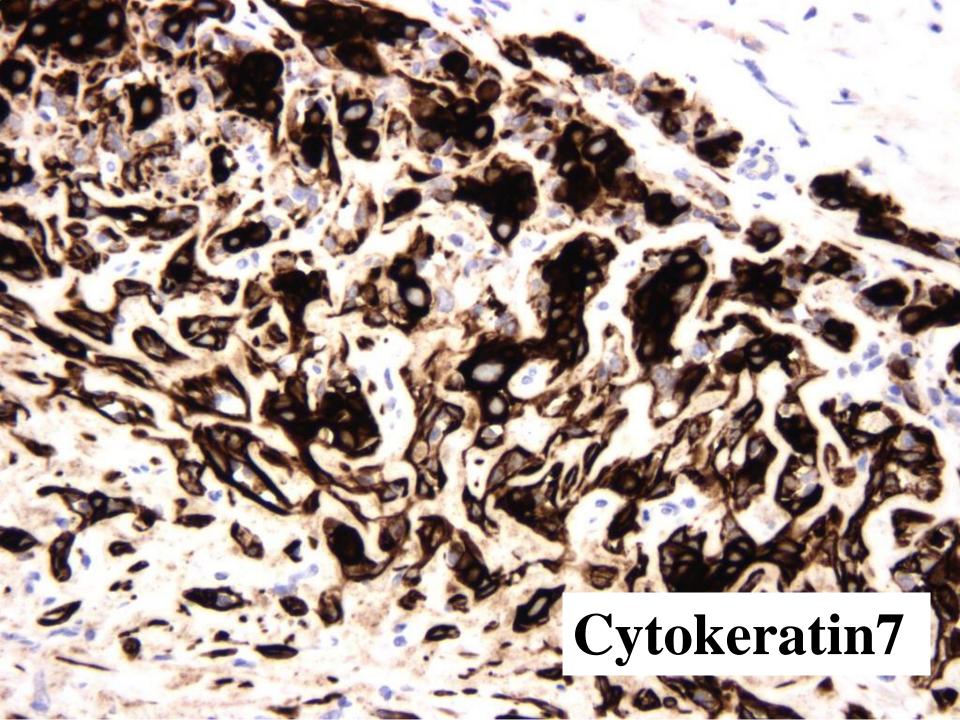


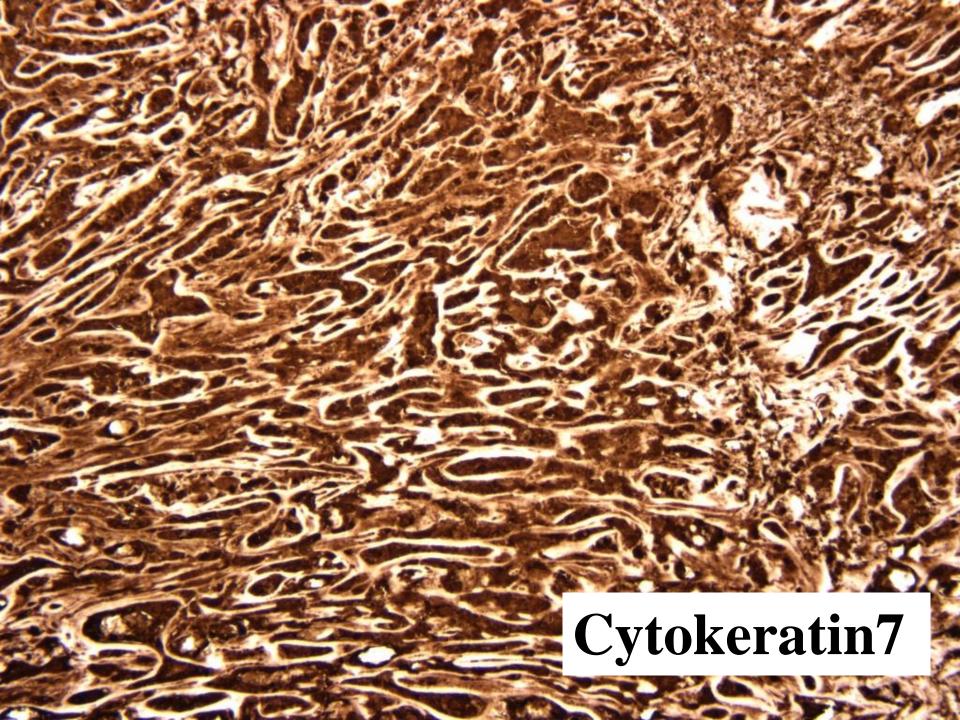


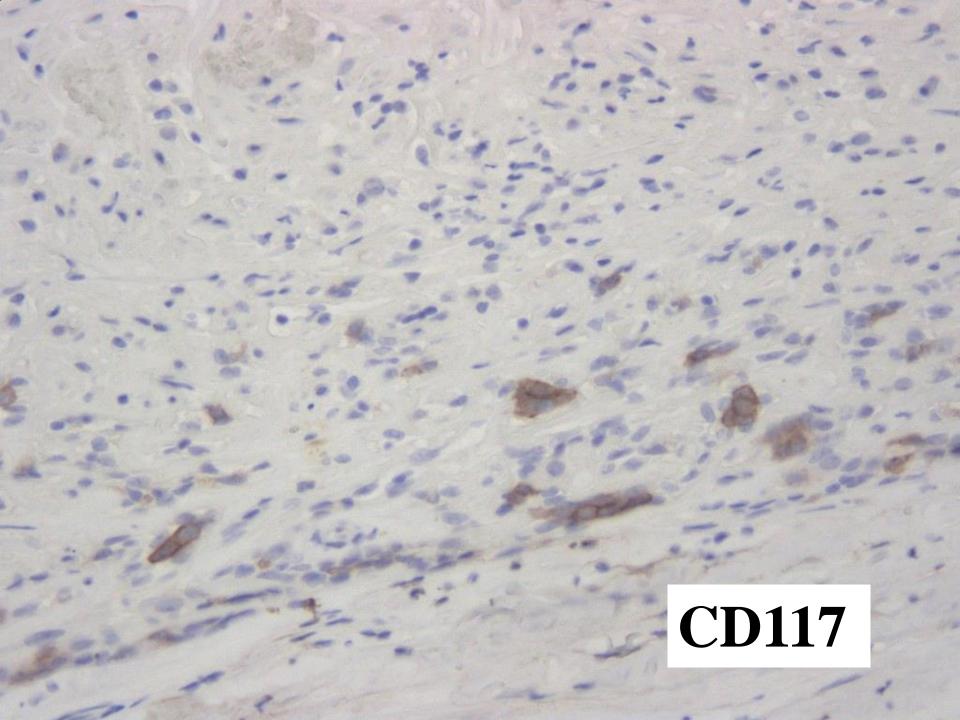


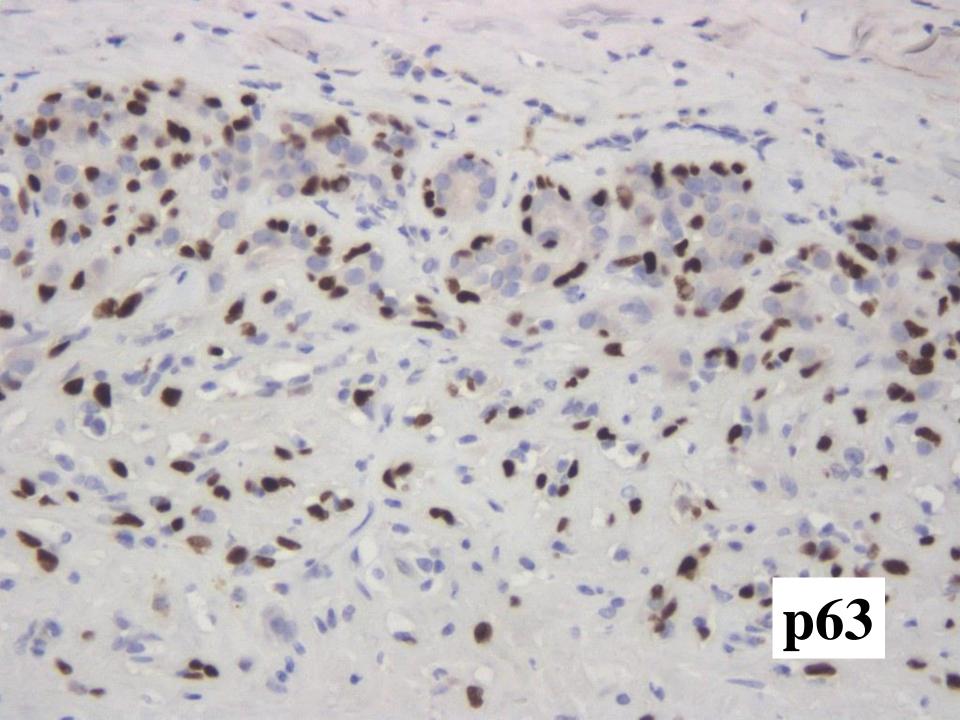


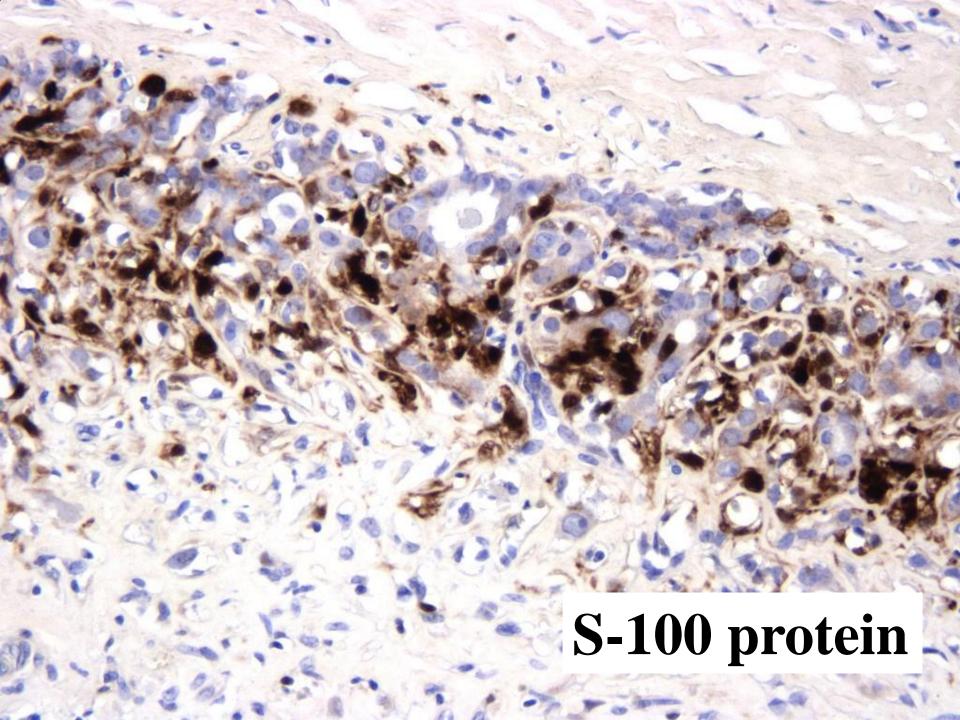


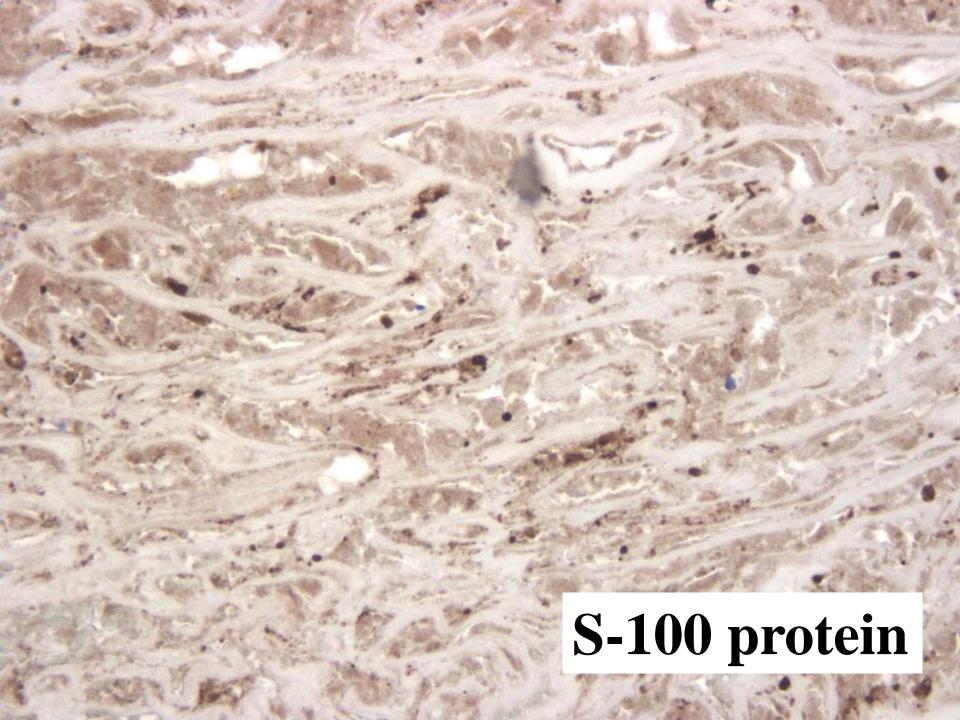


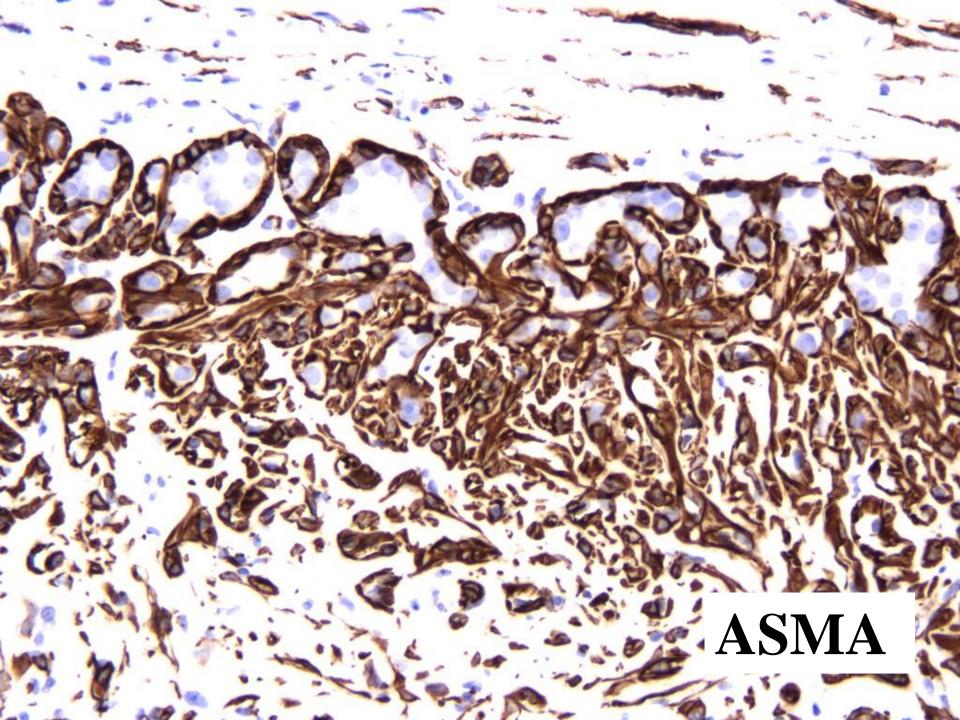


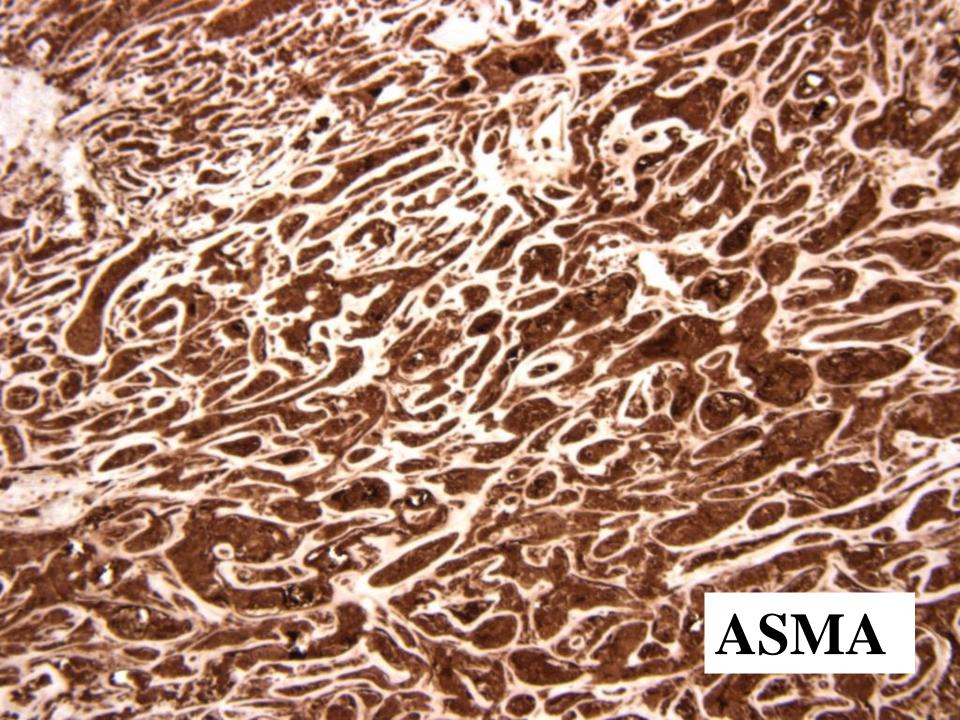


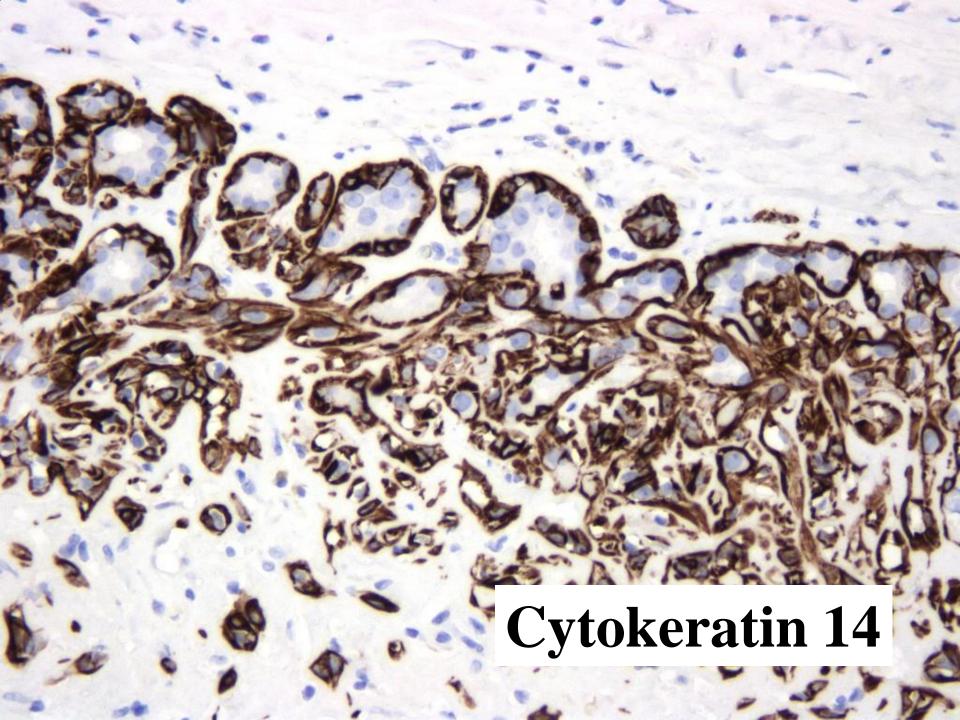


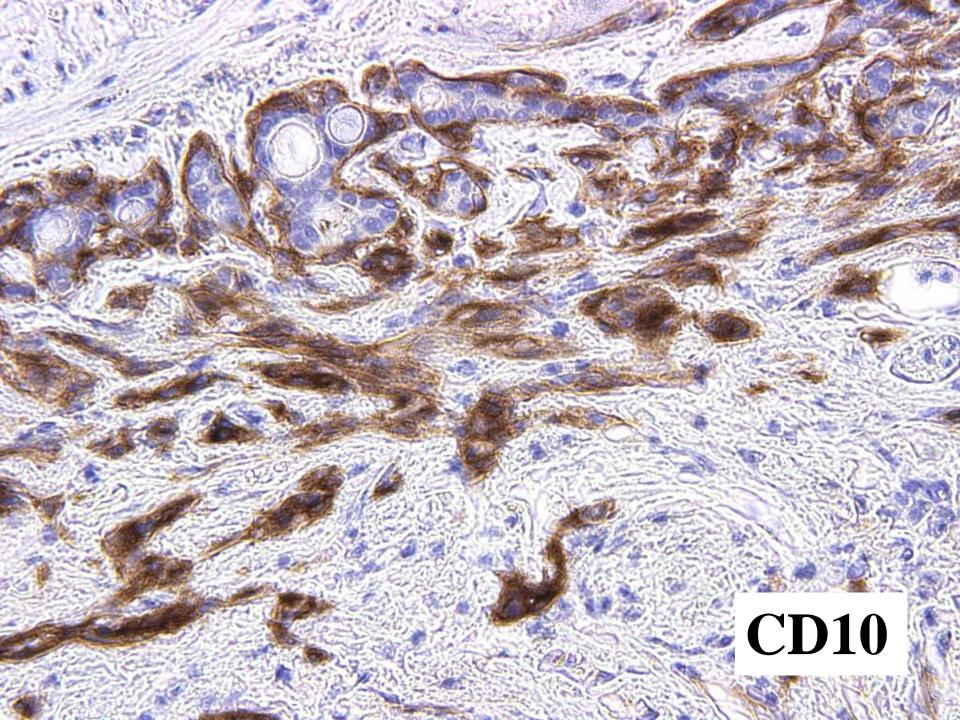


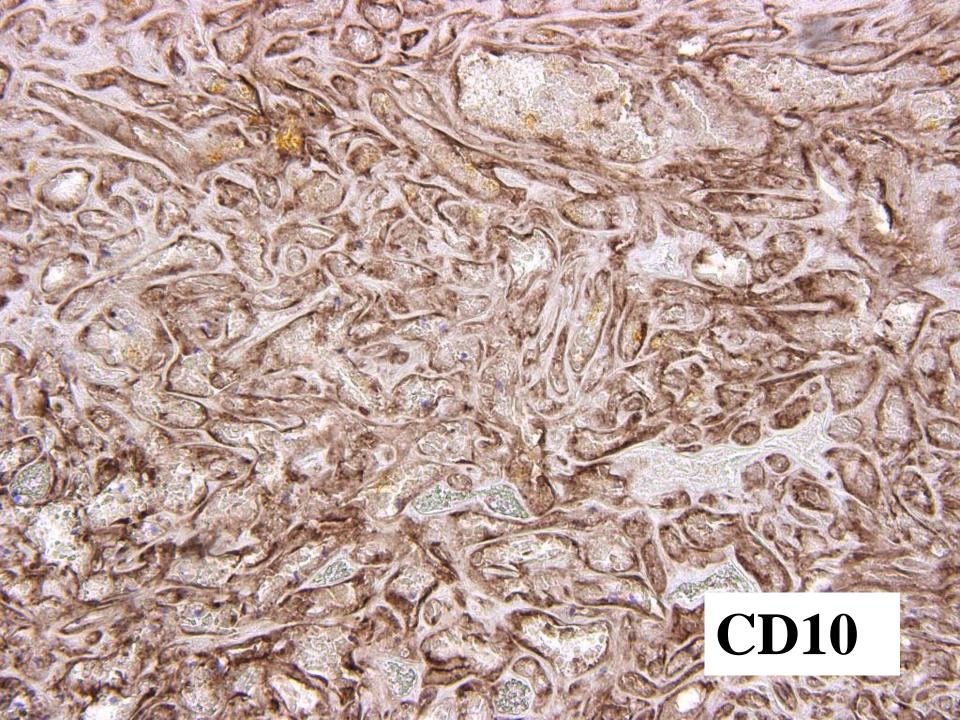


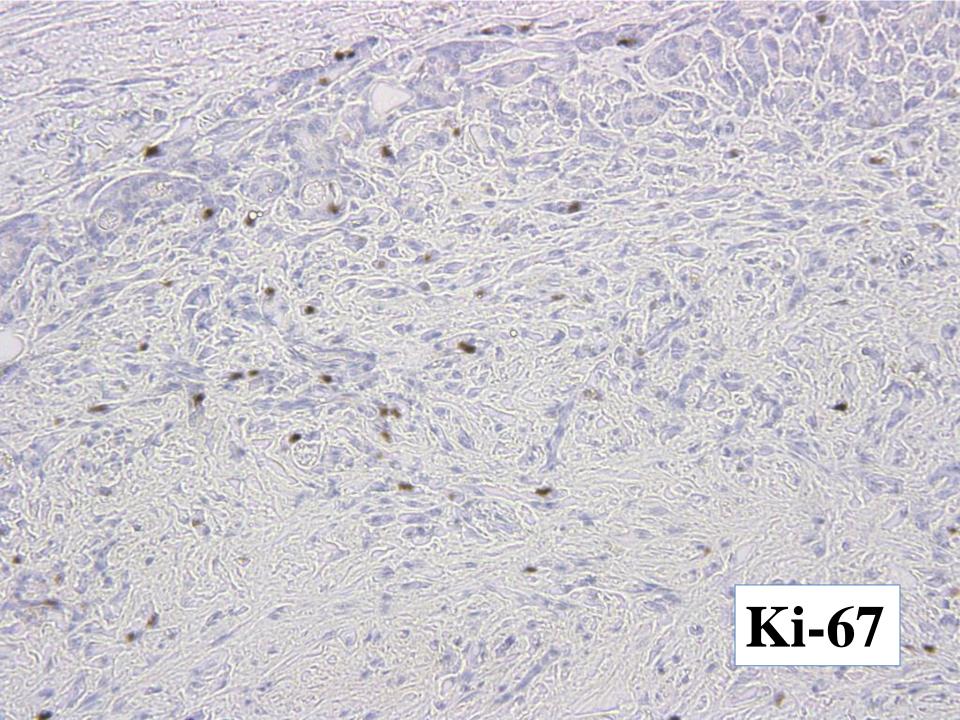


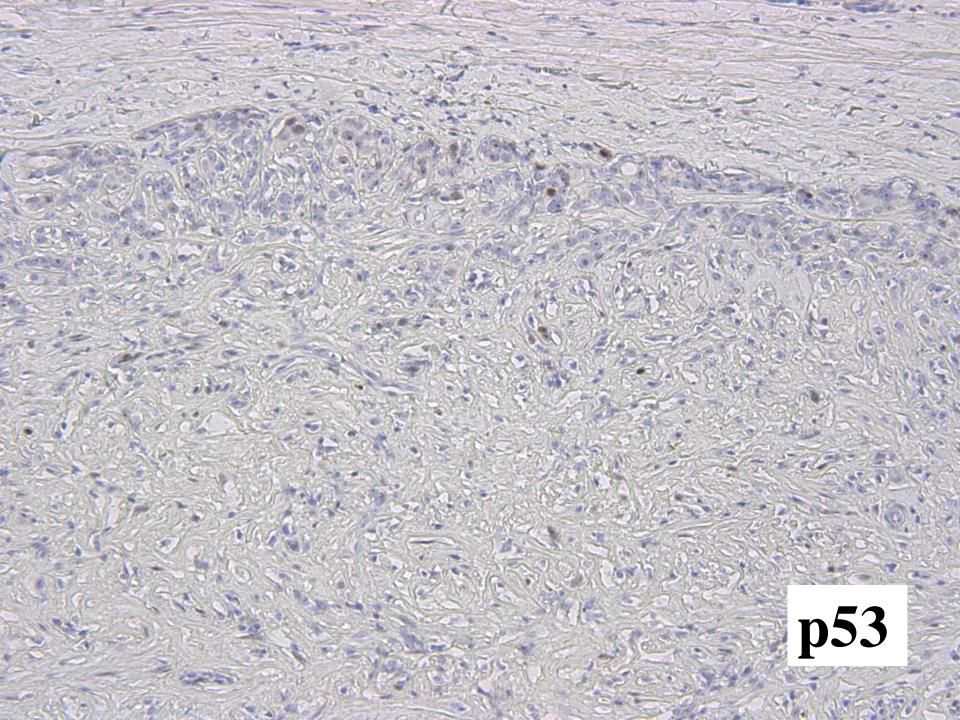












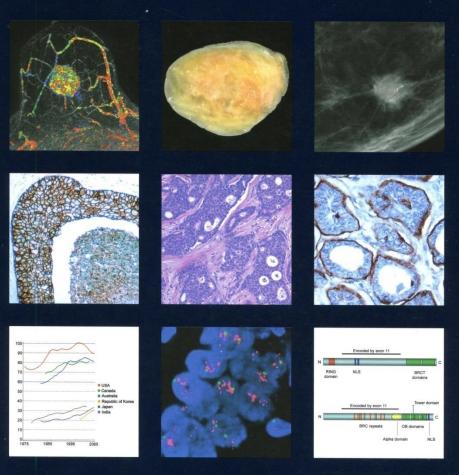
## 本病変のまとめ

- 1) 肉眼的に境界明瞭。
- 2) 病変の大半は壊死。
- 3) 辺縁部で二層性を示す 上皮・筋上皮が増殖して いる。
- 4) 増殖能は高くない。

# Final Diagnosis Benign lesion with extensive necrosis

## WHO Classification of Tumours of the Breast

Edited by Sunil R. Lakhani, Ian O. Ellis, Stuart J. Schnitt, Puay Hoon Tan, Marc J. van de Vijver





### Intraductal papilloma

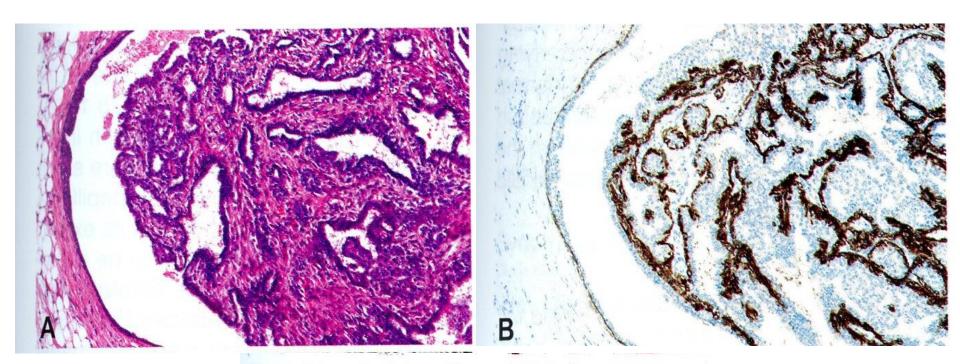


Fig. 7.04 Intraductal papilloma. A Note the arrangement of an epithelial layer surrounded by a myoepithelial layer. B Calponin immunostaining highlights the myoepithelial cells.

### 可能性は低い。

### **Adenosis**

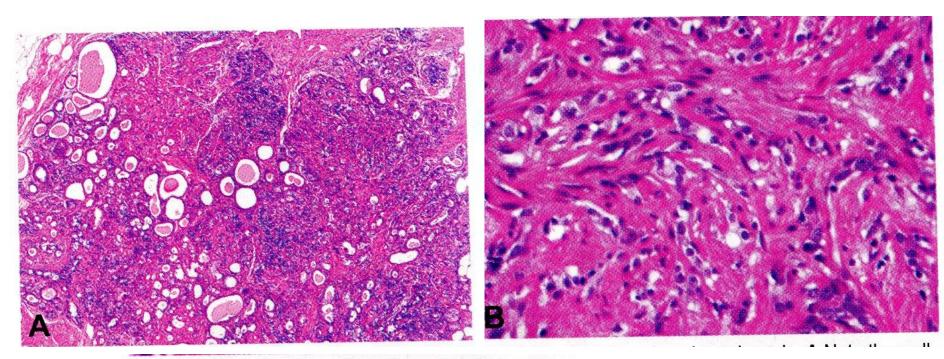
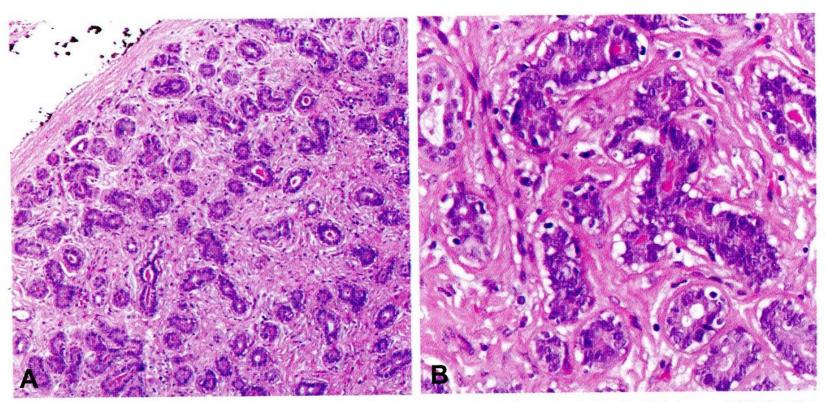


Fig. 8.01 Nodular sclerosing adenosis. A Note the well-delineated margins. B High-power view of the same lesion showing distorted and compressed tubular structures and intervening hyaline stroma. Such lesions may pose difficulties regarding the differential diagnosis with invasive lobular carcinoma.

ありえる。

### Tubular adenoma



**Fig.8.08** Tubular adenoma. **A** A circumscribed nodule composed of well-formed tubules. **B** At higher magnification the glands are lined by regular epithelial and myoepithelial cells.

ありえる。

### **Ductal adenoma**



**Fig. 8.10** Ductal adenoma is characterized by an intraductal glandular proliferation.

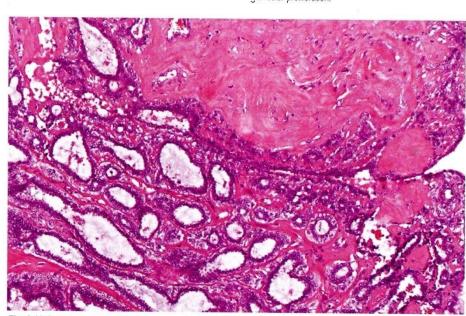
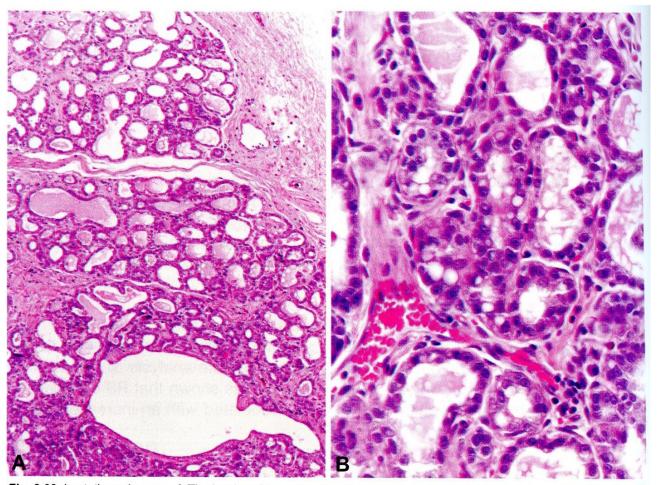


Fig. 8.11 Ductal adenoma. At higher power, glands can be seen to be lined by a double cell layer; in the present case, the myoepithelial layer is prominent.

### 可能性低い。

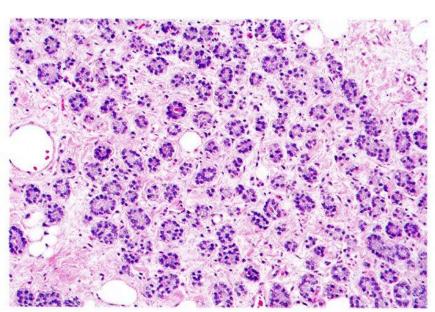
### Lactating adenoma



**Fig. 8.09** Lactating adenoma. **A** The border of the lesion is well-circumscribed. **B** Lactating adenoma is characterized by secretory changes in the epithelial cells.

### 年齢から除外。

### Microglandular adenosis



**Fig. 8.03** Microglandular adenosis. A haphazard proliferation of small round glands with open lumina composed of a single layer of flat to cuboidal epithelial cells. Luminal eosinophilic secretions are typically present.

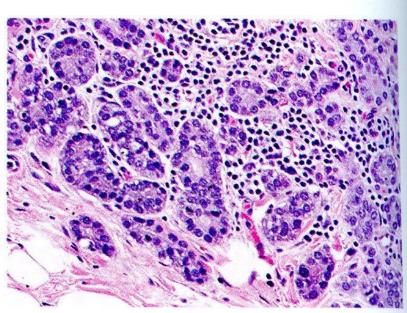
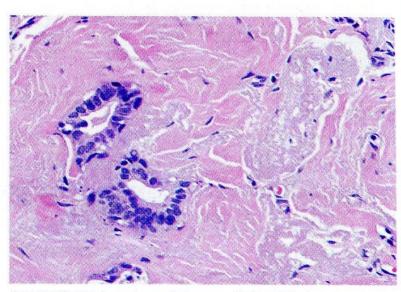


Fig. 8.04 Atypical microglandular adenosis shows more complex architecture and epithelial cells with nuclear atypia.

## 上皮がS-100陰性なので、失格。

### Radial scar



**Fig. 8.06** Centre of a radial scar with two tubular structures, surrounded by hyalinized and elastotic tissue. Note the atrophic myoepithelial layer.

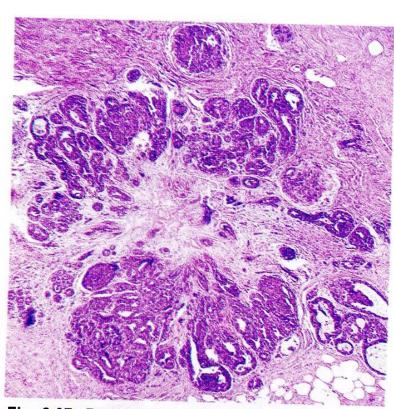


Fig. 8.07 Radial scar. A central fibrous scar is surrounded by epithelial proliferation.

### 可能性低い。

### Pleomorphic adenoma

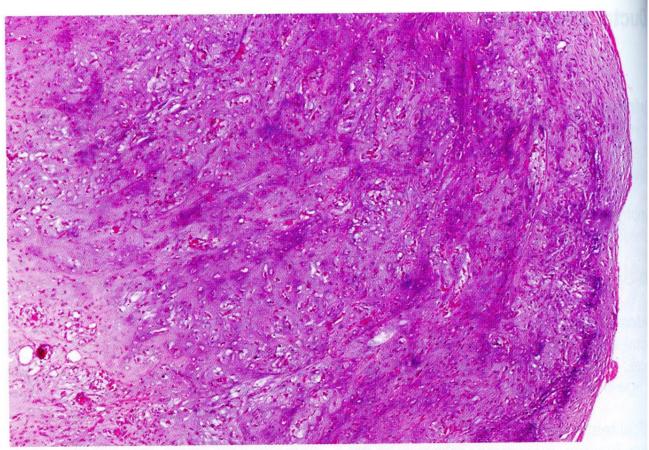


Fig. 8.12 Pleomorphic adenoma. Sparse cells immersed in myxochondroid stroma.

形態から予選落ち。

### Adenomyoepithelioma

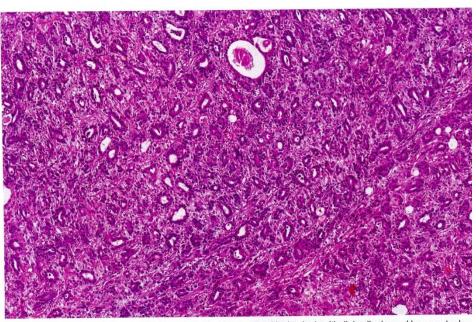


Fig. 9.06 Adenomyoepithelioma. A biphasic pattern of tubules lined by luminal epithelial cells rimmed by an outer layer of prominent pale myoepithelial cells.

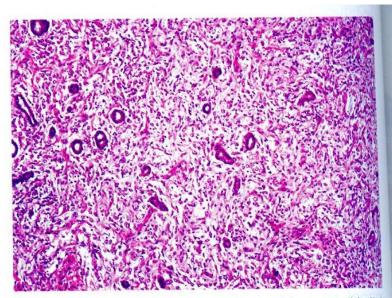


Fig. 9.05 Adenomyoepithelioma with myoepithelial carcinoma observed as a spindle cell proliferation emanating from the myoepithelial component.

ありえる。



## Fine-needle aspiration cytology of mammary adenomyoepithelioma: report of a case with <u>intranuclear</u> <u>cytoplasmic inclusions</u>.

Valente PT<sup>1</sup>, Stuckey JH.

**Author information** 

#### **Abstract**

Adenomyoepithelioma of the breast is an uncommon lesion which may recur and rarely metastasizes. We report the fine-needle aspiration (FNA) findings in one case of mammary adenomyoepithelioma in which this tumor's unusual cytomorphology led to a cytologic diagnosis of malignancy, possible metastatic to the breast. Large, atypical, polygonal cells, some with intranuclear cytoplasmic inclusions, were most worrisome cytologically, but corresponded in the biopsied specimen to cells immunohistochemically documented to be of myoepithelial origin. Nests of epithelium and myoepithelial cells sometimes embedded in fibrous, stromal fragments were suggestive of an infiltrating pattern. Recognition of such unusual features in breast FNA is most important since definitive therapy may follow an FNA diagnosis of carcinoma in some clinical settings. In cases with unusual morphology, surgical biopsy should be recommended to clarify the nature of the lesion.





## Fine-needle aspiration biopsy of breast adenomyoepithelioma: a potential false positive pitfall and presence of intranuclear cytoplasmic inclusions.

Saad RS<sup>1</sup>, Richmond L, Nofech-Mozes S, Ghorab Z.

#### Author information

#### Abstract

Cytologic diagnosis of adenomyoepithelioma can be very challenging. We report fine needle aspiration cytology (FNAC) findings of a benign adenomyoepithelioma. The cytologic features are characterized by hypercellularity and the presence of numerous atypical dispersed cells with epithelioid morphology and intact cytoplasm. The nuclei showed stippled chromatin, irregular nuclear membrane, and prominent eosinophilic nucleoli. No necrosis or mitoses were seen. The presence of naked nuclei, and extensive intranuclear cytoplasmic inclusions were identified and raised the possibility of adenomyoepithelioma. Immunohistochemically, the atypical cells showed strong positivity for myosin heavy chain, p63, and CK5/6, while the epithelial cells reacted with estrogen receptors. This immunophenotypic pattern supports the myoepithelial origin of the atypical cell proliferation and favors the diagnosis of benign adenomyoepithelioma. However, biopsy was recommended to exclude malignancy. Histologically, the tumor showed prominent myoepithelial cells with significant atypia, intranuclear cytoplasmic inclusions, and dense cytoplasm. No evidence of malignancy was identified. In conclusion, we report a case of adenomyoepithelioma with a significant cytological atypia that may result in confusion with malignant breast tumors. The presence of intranuclear cytoplasmic inclusions, naked nuclei, and expression of myoepithelial markers should provide clues to the right diagnosis and benign nature of this lesion. Cytopathologists should be familiarized with this entity to avoid a misdiagnosis of carcinoma.

## 梗塞をきたす良性腫瘍と いう視点でとらえると

Intraductal papillomaが 多いが他疾患でも起こり える現象か?





### Infarcted intraductal papilloma of the breast: cytologic features with stage of infarction.

Ishihara A<sup>1</sup>, Kobayashi TK.

#### **Author information**

#### **Abstract**

Fine-needle aspiration cytology (FNAC) is being employed with increasing frequency for the pre-operative diagnostic workup of **breast** lesions. Although most cases show morphologic features very characteristic of specific entities, rare lesions with infarcted **breast** can cause problems in interpretation. We present cytologic findings in seven cases of an infarcted **intraductal papilloma** of the **breast** (IDPB) that was diagnosed by FNAC, and we also report the correlation of cytological features and stages of infarcted IDPB. In the early stage of infarction, numerous degenerative cells and necrotic debris were demonstrated. Isolated degenerative cells showed columnar, spindle, polygonal and fiber-like cells, with coagulated and smudged nuclei. Ghost cells were also seen. Extensive **necrosis** was demonstrated with a few sheets of ductal cells in the mid-stage of infarction. In the late stage of infarction, clusters of fibroblasts, ductal cells and necrotic debris were found. Knowledge of the characteristic cytologic pattern in different stages of infarcted IDPB may be helpful to suggest the probable pre-operative diagnosis of those lesions. Familiarity with this entity is important in preventing misdiagnosis of malignancy.

### Ductal adenomaではありえる。

Breast Cancer Vol. 13 No. 4 October 2006

### **Case Report**

### Two Cases of Ductal Adenoma of the Breast

Ken-ichi Okada\*<sup>1</sup>, Yasuhiro Suzuki\*<sup>1</sup>, Yuki Saito\*<sup>1</sup>, Shinobu Umemura\*<sup>2</sup>, and Yutaka Tokuda\*<sup>1</sup>

\*1Department of Surgery and \*2Department of Pathology, Tokai University School of Meidicine, Japan.

We encountered two cases of ductal adenoma of the breast. In the first case, a 32-year-old woman presented with a two-year history of a left breast lump. Previous ultrasonography had demonstrated three tumors which were thought to be most likely fibroadenoma. On excisional biopsy of the largest, intraoperative pathological examination of frozen sections was suspicious for ductal carcinoma with a differential diagnosis of intraductal papilloma or intraductal papillary carcinoma. Ductal adenoma was diagnosed after pathological examination of the permanent sections.

The second case was a 64-year-old woman who presented with a hard lump in her left breast. Mammography and ultrasonography demonstrated images typical of carcinoma. Aspiration biopsy cytology (ABC) repeated twice was reported as "indeterminate". Excisional biopsy was later done. Ductal adenoma (sclerosing papilloma) with hemorrhagic infarction was diagnosed.

It is noteworthy that ductal adenoma have clinical and histopathological features that should be differentiated from carcinoma, especially when the tumor is accompanied by secondary changes such as hemorrhage or infarction.

Breast Cancer 13:354-359, 2006.

Key words: Ductal adenoma, Breast, Infarction

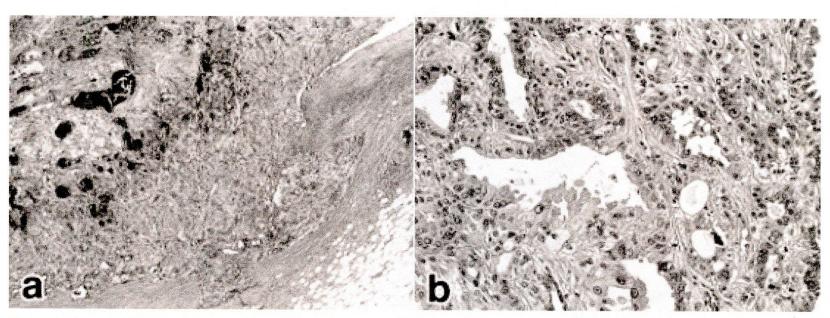


Fig 4. Histopathological findings of case 2. Lower power magnification shows that the tumor is encapsulated by thick fibrous tissue and accompanied by pseudoinvasion. The central area (left upper part) is necrotic with congestive changes. Higher power of magnification shows the tumor mass consists of hyperplastic epithelial elements and occasional apocrine features. (a; hematoxylin-eosin,  $\times$ 2) (b; hematoxylin-eosin,  $\times$ 10).

### Adenomyoepitheliomaでも起こりえる。

Pathol Res Pract. 2016 Feb;212(2):130-4. doi: 10.1016/j.prp.2015.09.0

### Adenomyoepithelioma with carcinoma of the breast: A report of two cases and a review of the literature.

Xu J<sup>1</sup>, Tang X<sup>2</sup>, Iida Y<sup>3</sup>, Fuchinoue F<sup>2</sup>, Kusumi T<sup>4</sup>, Yagihashi N<sup>5</sup>, Kawachi K<sup>6</sup>, Shimizu S<sup>7</sup>, Masuda S<sup>2</sup>.

#### **Author information**

#### **Abstract**

We herein described two cases of **adenomyoepithelioma** (AME) with carcinoma of the **breast**. Both of them were Japanese women, and they presented with a mass in their **breast**. Post-operative specimens revealed encapsulated and well-circumscribed tumors with local invasion, **necrosis**, cytological atypia, and a high mitotic rate. In immunohistochemistry, coincidentally with the loose adhesion pattern of myoepithelial cells in both cases, the intensities of E-cadherin and beta-catenin were much weaker in myoepithelial than luminal epithelial cells, with almost negative finding of beta-catenin in one case. We first found deletion of CDH1 and polysomy of CEP16 in myoepithelial cells by double color-fluorescence in situ hybridization. The two cases have been followed up for 5-8 years, and both remained free from local recurrence and distant metastases. We also presented an overview of 47 cases of AME with carcinoma in English-language literatures.

#### ORIGINAL PAPER

Naoto Kuroda · Nokiaki Fujishima · Masahiko Ohara Takashi Hirouchi · Keiko Mizuno · Yoshihiro Hayashi Gang-Hong Lee

### Coexistent adenomyoepithelioma and invasive ductal carcinoma of the breast: presentation as separate tumors

Received: March 9, 2007 / Accepted: July 3, 2007

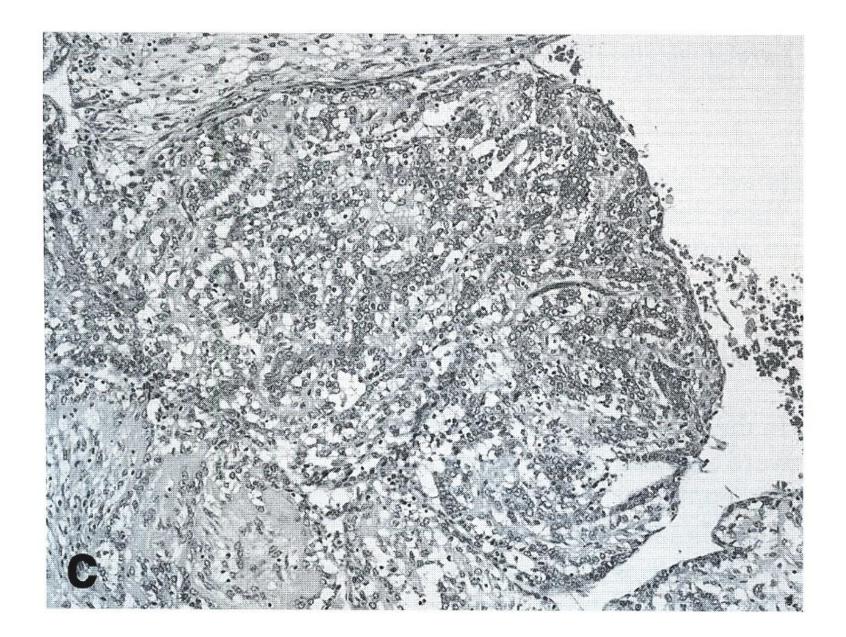
Abstract Adenomyoepitheliomas are rare breast tumors. We report an unusual case of adenomyoepithelioma associated with invasive ductal carcinoma here. Histologically, the lesion consisted of two separate tumors. One nodule corresponded to invasive ductal carcinoma consisting of tubular and trabecular arrangements of columnar or cuboidal neoplastic cells. The other tumor corresponded to adenomyoepithelioma consisting of an inner layer of neoplastic cells with basophilic cytoplasm and the outer layer of neoplastic cells with clear cytoplasm. Immunohistochemically, some myofibroblasts were observed in the stroma of both adenomyoepithelioma and invasive ductal carcinoma, but no CD34-positive stromal cells were seen in the stroma of either lesion. The stromal reaction of adenomyoepithelioma resembles that of intraductal papilloma in the previous study. To the best of our knowledge, this is the first case of coexistent adenomyoepithelioma and invasive ductal carcinoma of the breast that were discovered as separate nodules. Clinicians and pathologists should be aware of such an association because they need to distinguish such a case from malignant neoplasms arising in adenomyoepithelioma. Additionally, our preliminary report suggests that the stromal response of adenomyoepithelioma may resemble that of intraductal papilloma.

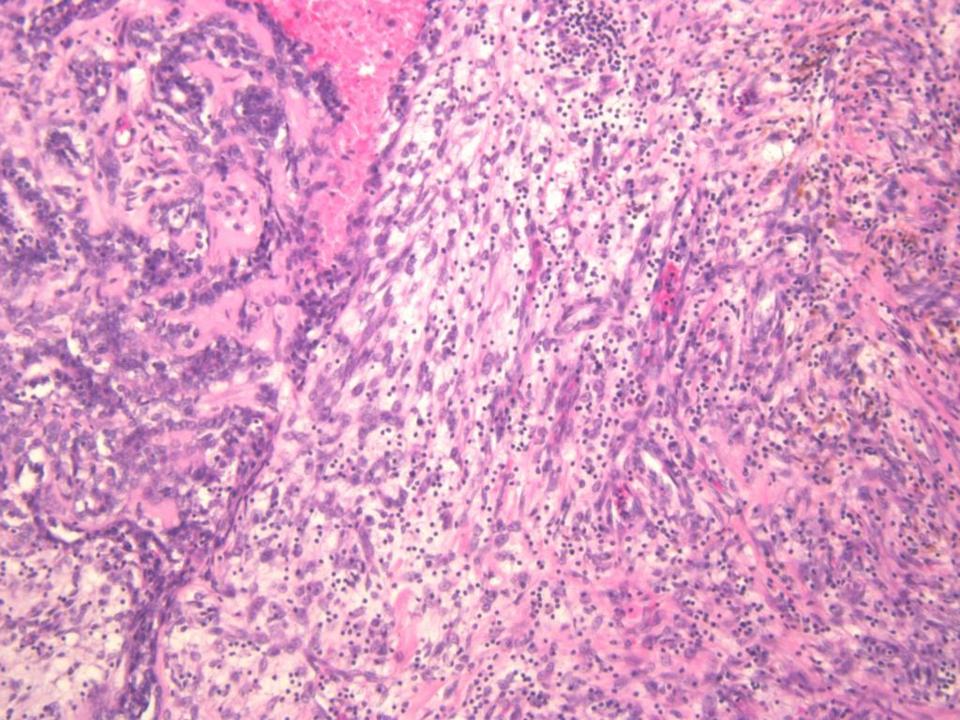
**Key words** Adenomyoepithelioma · Invasive ductal carcinoma · Breast

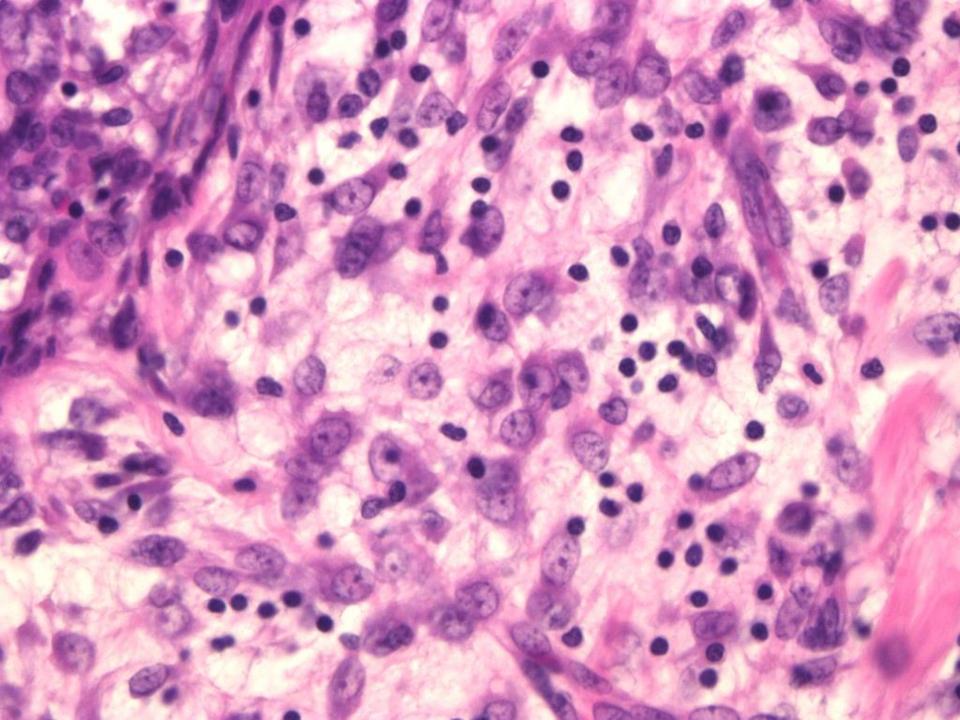
#### Introduction

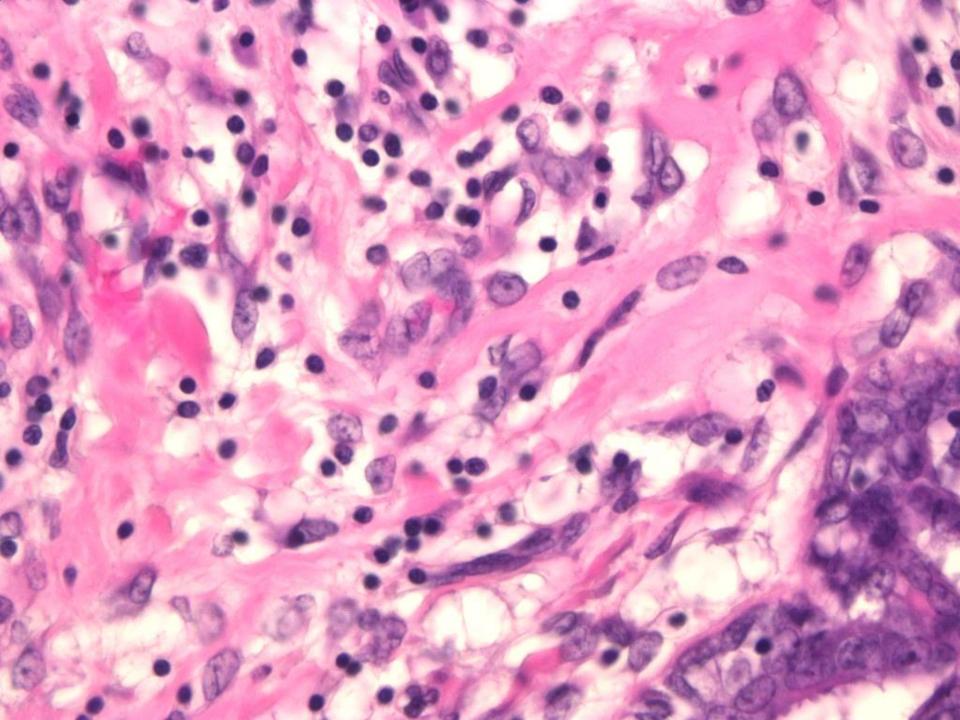
Adenomyoepitheliomas are rare breast tumors, and various types of malignant neoplasms arising in adenomyoepithelioma or a malignant counterpart of adenomyoepithelioma have been reported to date. <sup>1-14</sup> However, there have been no descriptions of coexistent carcinoma and adenomyoepithelioma as separate tumors in the same breast of the same patient. We report here a case with invasive ductal carcinoma of the breast in the adjacent area of adenomyoepithelioma and discuss the clinical and pathological significance of such a case. Additionally, we studied the stromal response of adenomyoepithelioma and invasive ductal carcinoma in the present case.

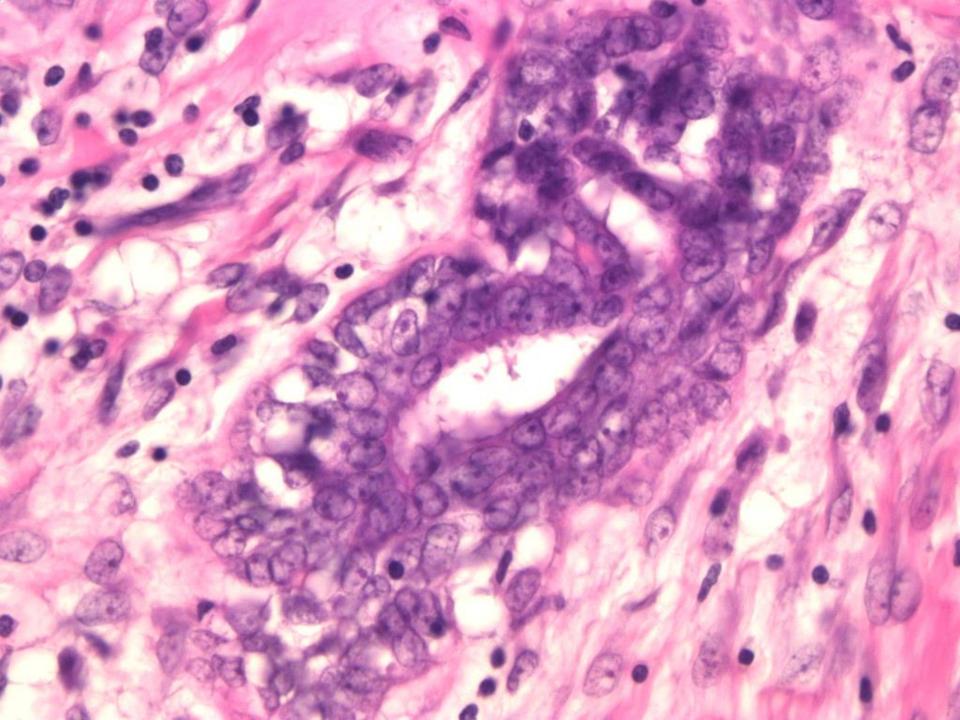
#### Case report











筋上皮の核の形態 は本症例と類似し ていたが、切除標 本ではともに核内 封入体はなかった。

# 本症例の疑問点

- 1)良性?悪性?
- 2)良性とすれば病理診断は?