



Eugeni López Bonet

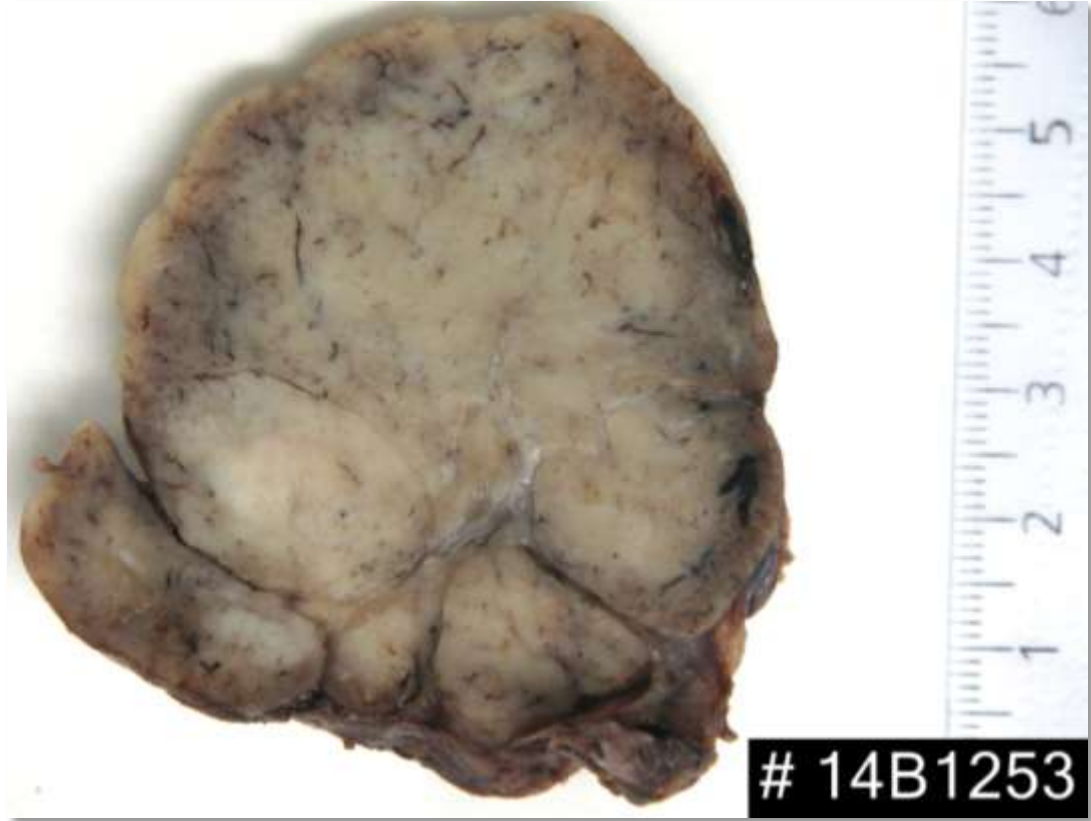
Servei d'Anatomia Patològica

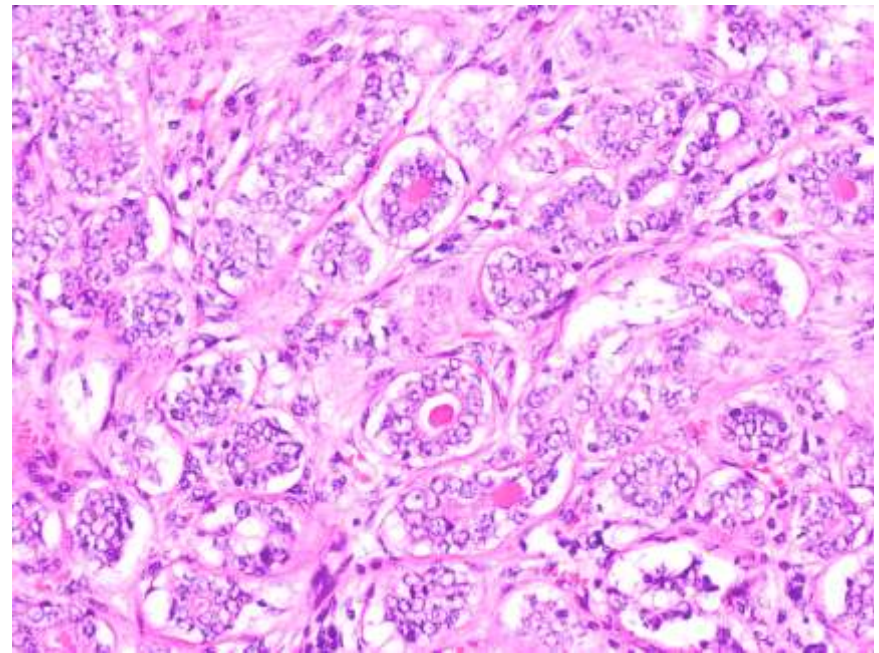
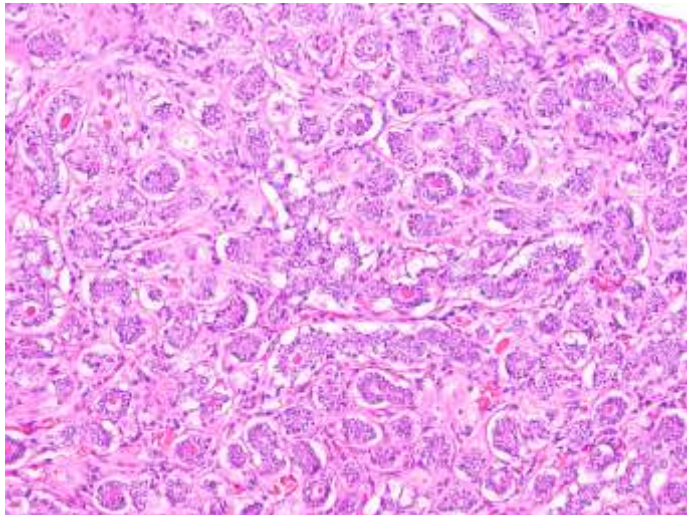
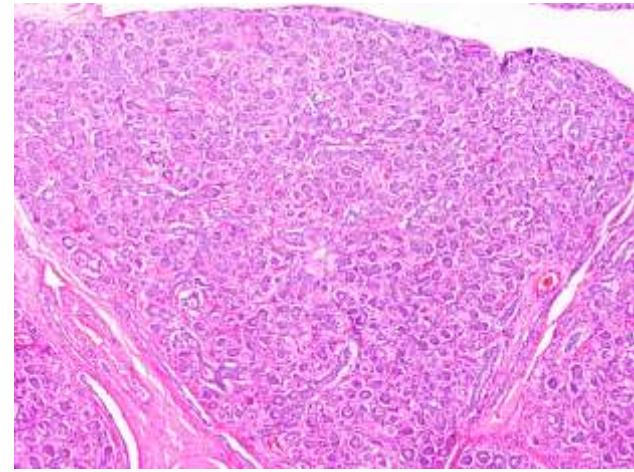
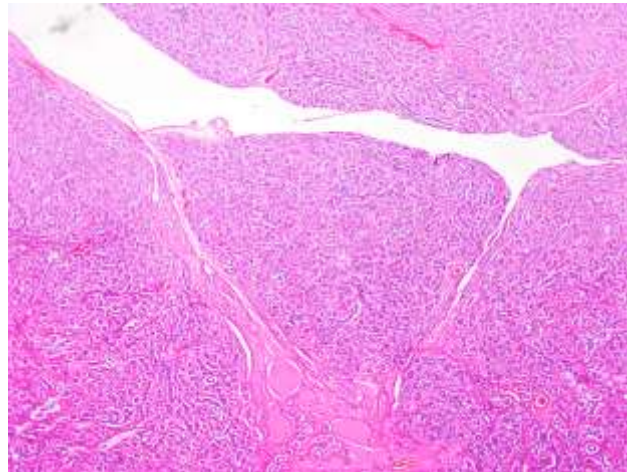
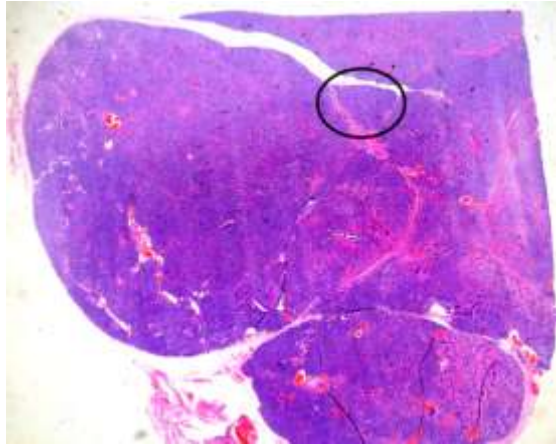
Hospital Universitari de Girona Dr. Josep Trueta

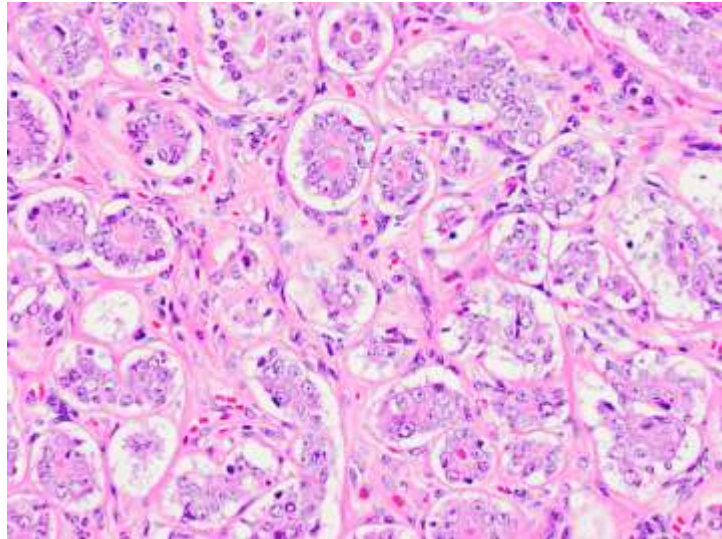
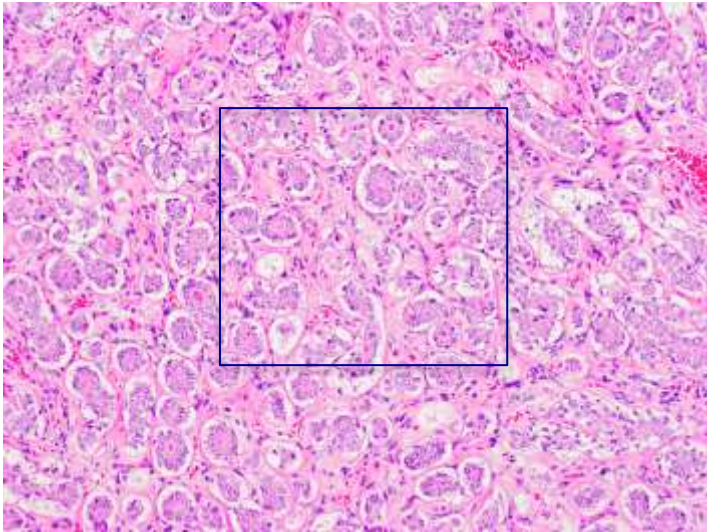
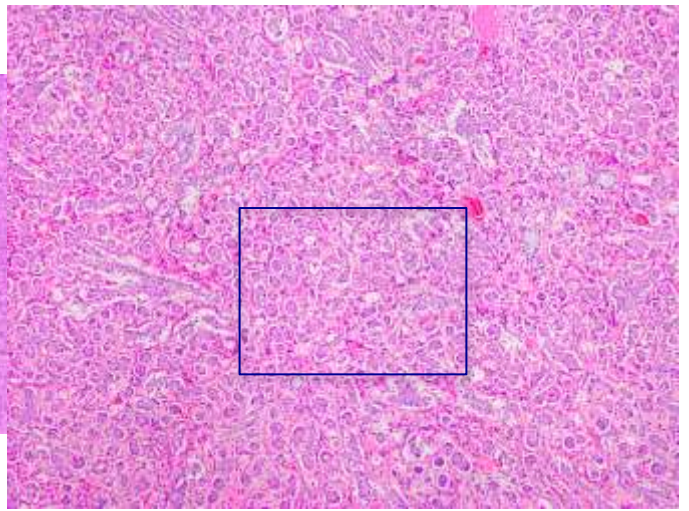
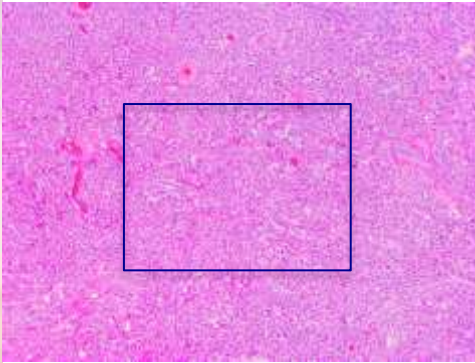
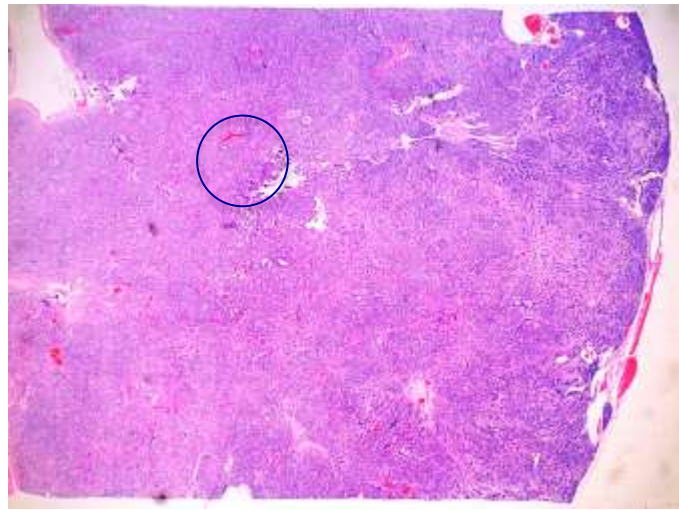
Barcelona 24 d'Abril de 2014



Dona de 24 anys. Nòdul UQinf esq. de 6 cm.

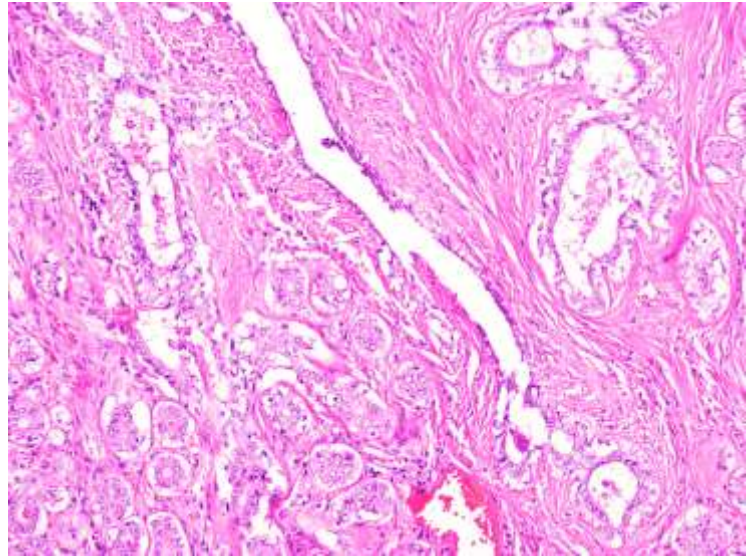
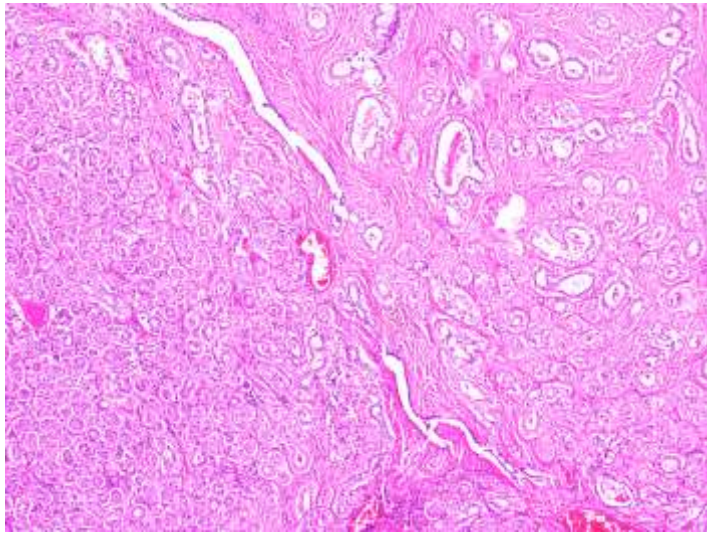
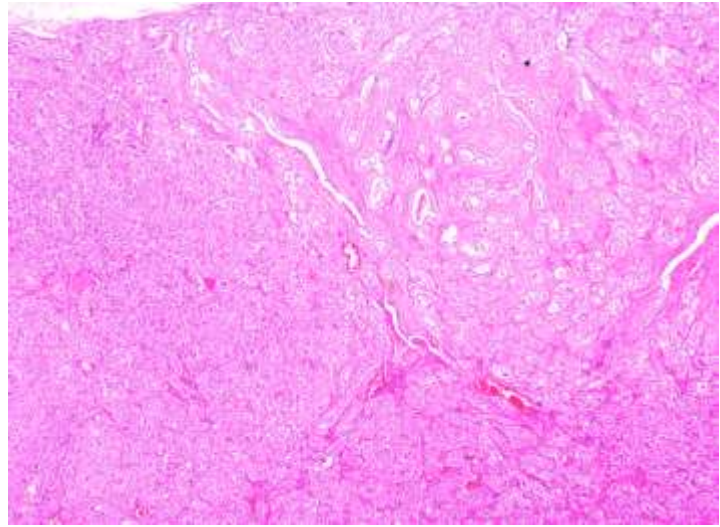
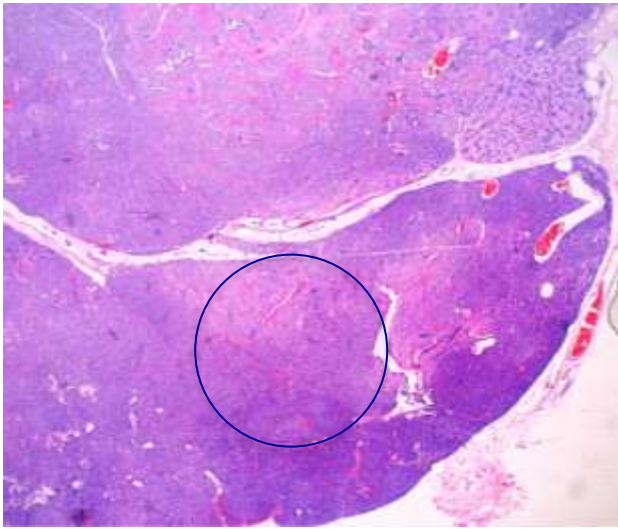


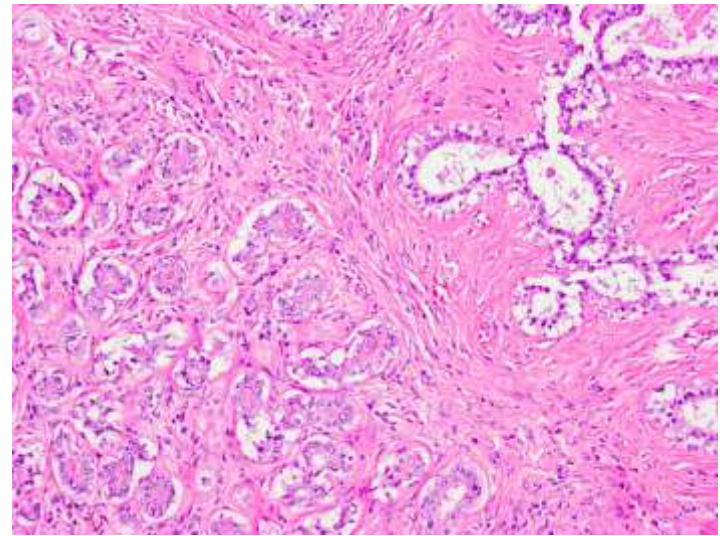
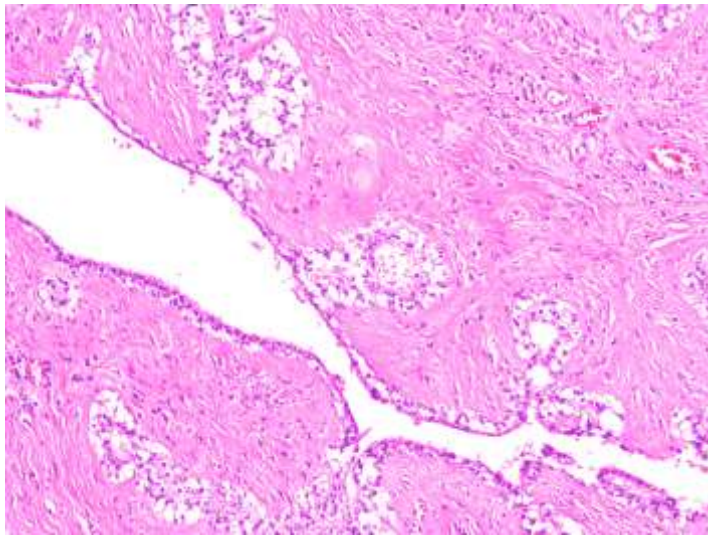
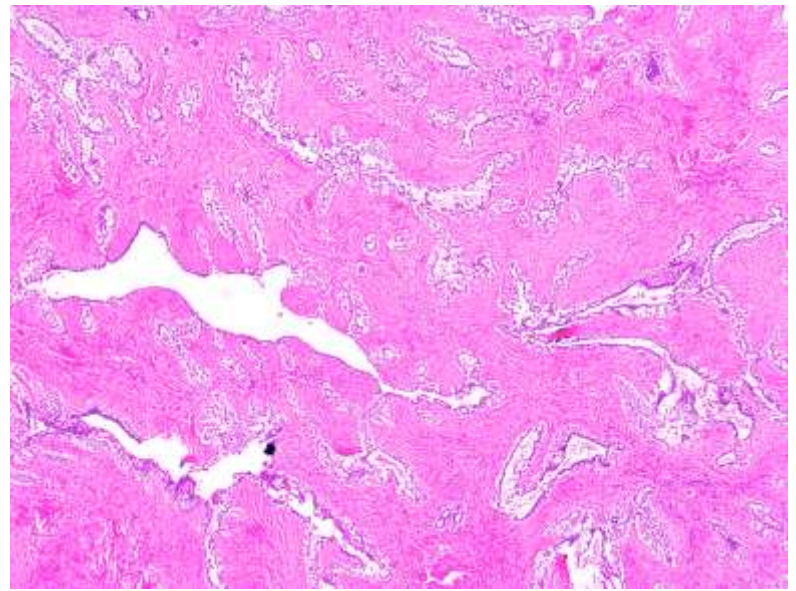
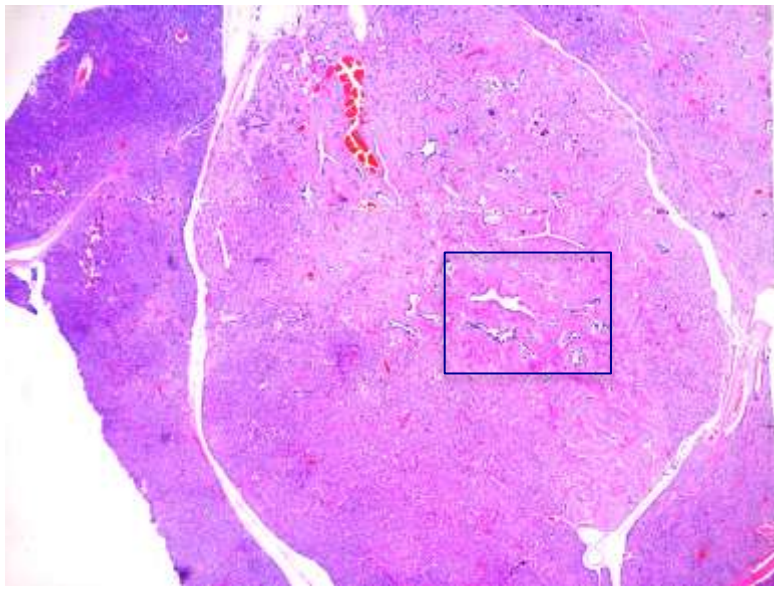


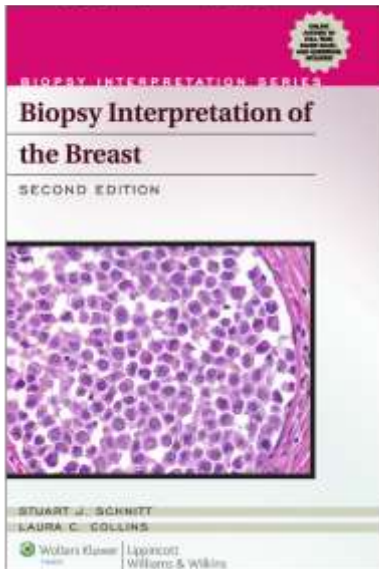


Diagnòstic: ADENOMA TUBULAR

Entitat pròpia o variant de Fibroadenoma?







CONTENTS

| | |
|--|-----|
| Preface to the First Edition..... | v |
| Preface to the Second Edition..... | vii |
| Acknowledgments..... | ix |
| 1 Normal Anatomy and Histology..... | 1 |
| 2 Reactive, Inflammatory, and Nonproliferative Lesions..... | 25 |
| 3 Intraductal Proliferative Lesions: Usual Ductal Hyperplasia, Atypical Ductal Hyperplasia, and Ductal Carcinoma In Situ..... | 58 |
| 4 Columnar Cell Lesions and Flat Epithelial Atypia..... | 107 |
| 5 Lobular Carcinoma In Situ and Atypical Lobular Hyperplasia..... | 136 |
| 6 Fibroepithelial Lesions..... | 171 |
| 7 Adenosis and Sclerosing Lesions..... | 202 |
| 8 Papillary Lesions..... | 228 |
| 9 Microinvasive Carcinoma..... | 267 |
| 10 Invasive Breast Cancer..... | 282 |
| 11 Spindle Cell Lesions..... | 363 |
| 12 Vascular Lesions..... | 387 |
| 13 Other Mesenchymal Lesions..... | 408 |
| 14 Miscellaneous Rare Lesions..... | 419 |
| 15 Nipple Disorders..... | 429 |
| 16 Male Breast Lesions..... | 451 |
| 17 Breast Lesions in Children and Adolescents..... | 462 |
| 18 Axillary Lymph Nodes..... | 471 |
| 19 Treatment Effects..... | 493 |
| 20 Specimen Processing, Evaluation, and Reporting..... | 507 |
| Index..... | 527 |



6

FIBROEPITHELIAL LESIONS

Some lesions of the breast present as discrete masses composed of both stromal and epithelial components. Included within this category of epithelial lesions are fibroadenomas and phyllodes tumors. In addition, several other breast lesions present as well-defined nodules that possess histologic features that may resemble fibroadenomas, including several lesions categorized as "adenomas" and mammary hamartomas.

FIBROADENOMA

Fibroadenomas are the most common benign tumors of the female breast. They are most frequent in young women, especially those under 30 years, but may be seen at any age. They generally present as a solitary, palpable, firm, mobile mass and are typically <3 cm in size. Less frequently, multiple fibroadenomas or mammary hamartomas occur, which may be unilateral or bilateral. In addition, circumpapillary fibroadenomas may be detected by mammography as a mass, microcalcifications, or both.

Fibroadenomas are usually circumscribed and, on gross examination, appear as firm, well-circumscribed, round nodules that have a smooth, lobulated outer surface and a tan-gray, lobular, lobulated cut surface, often with visible oil-like spaces (Fig. 6.1). However, the gross appearance may vary from soft and rounded to extremely firm and scirrhous.

Microscopically, fibroadenomas are well-circumscribed, but non-encapsulated lesions characterized by a proliferation of both stromal and glandular elements. In most fibroadenomas, the progression of glands and stroma is relatively consistent throughout the lesion. This growth pattern is recognized as intracanalicular pattern, in which the glands are dilated, arched, and compressed by the proliferating stroma (Fig. 6.2, ▶ Fig. 6.1) and a pericanalicular pattern, in which the stroma surrounds glandular structures with equal lengths (Fig. 6.3, ▶ Fig. 6.2). These patterns often overlap and are not thought to have any clinical significance. However, a fibroadenoma with a prominent intracanalicular pattern could

162 SOLID ADENOMAS OF THE BREAST



FIGURE 6.1 Fibroadenomatous change. Changes similar to those seen in fibroadenomas are present. Note the rather lobular but also circumscribed nature of the fibroadenoma, and the ability to push into the surrounding breast tissue.

Fibroadenomatous Change (Fibroadenomatoid Hyperplasia)

Fibroadenomatous change or fibroadenomatoid hyperplasia is a term used to describe histologic changes in the breast similar to those seen in fibroadenomas, but in which no discrete mass is formed (Fig. 6.12).

ADENOMAS

A variety of lesions of the breast have been considered to represent "adenomas." Some (such as tubular adenomas) may be variants of fibroadenomas, whereas others are considered to be fibroadenomas or to occur without fibroadenomas.

Tubular Adenomas

Tubular adenomas are well-delineated lesions that have features in common with fibroadenomas.¹ These tubular-type lesions usually occur in young women. It is debatable whether tubular adenomas should be considered a separate entity or merely a variant of fibroadenoma in which the epithelial elements predominate. On gross examination, like fibroadenomas, they are well-defined, but are softer and are characteristically tan-brown. The hallmark of tubular adenomas is the presence of closely packed round to oval glands on tubules, with little intervening fibrous stroma (Fig. 6.13). The tubules are lined by a double cell layer, but the squamoid cells are often inconspicuous. A distinct lymphocytic infiltrate may be present.

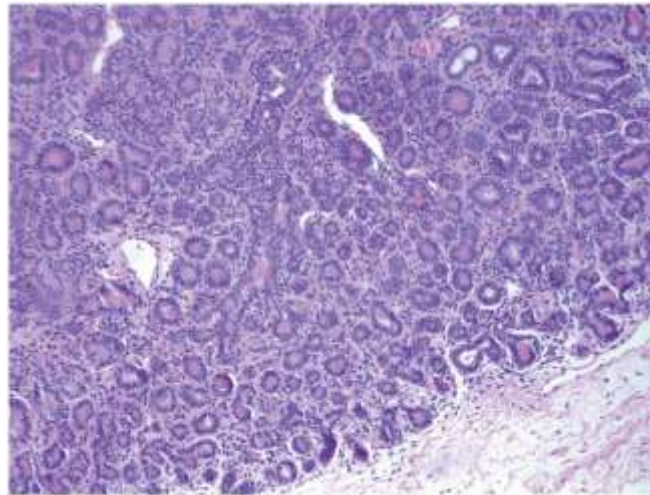
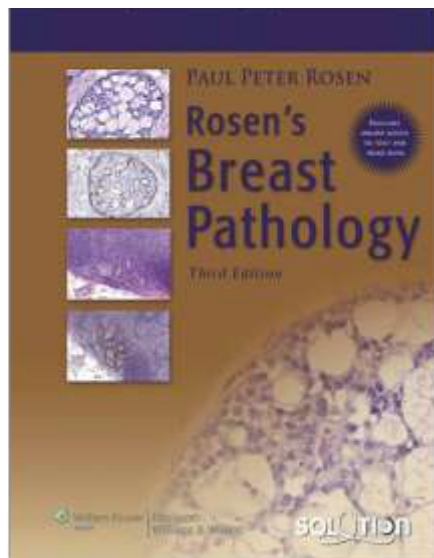
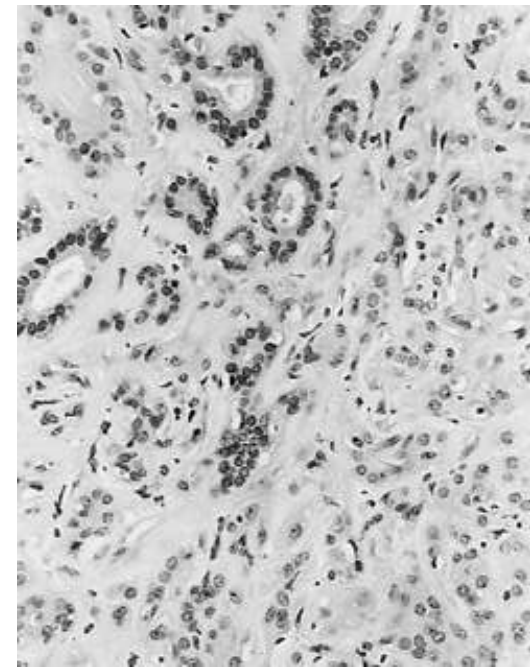


FIGURE 6.13 Tubular adenoma. The tubules are lined by a double cell layer, but the squamoid cells are often inconspicuous. A distinct lymphocytic infiltrate may be present.



| CONTENTS | |
|---|-------|
| Preface | ix |
| Preface to The First Edition | xii |
| Acknowledgments | xiii |
| Introduction | xv |
| The Pathologist as a Specialist in Breast Cancer Care: An Evolutionary and Social Perspective on Breast Pathology | xxi |
| Progress and Uncertainty in Breast Pathology | xxv |
| Tumor Microarrays, Gene Expression Profiles and Breast Pathology | xxvii |
| 1 Anatomy and Physiological Morphology | 1 |
| 2 Abnormalities of Mammary Growth and Development | 26 |
| 3 Inflammatory and Reactive Tumors | 33 |
| 4 Specific Situations | 71 |
| 5 Papillomas and Related Benign Tumors | 85 |
| 6 Myoepithelial Neoplasms | 117 |
| 7 Adenoma and Microglandular Adenoma | 164 |
| 8 Fibroepithelial Neoplasms | 167 |
| 9 Ductal Hyperplasia: Usual and Atypical | 239 |
| 10 Precancerous Breast Disease: Epidemiological, Pathological, and Clinical Considerations | 264 |
| 11 Intraductal Carcinoma | 285 |
| 12 Invasive Ductal Carcinoma: Assessment of Prognosis, Morphologic Progression Markers, and Tumor Growth Rate | 358 |
| 13 Tubular Carcinoma | 405 |
| 14 Papillary Carcinoma | 423 |
| 15 Medullary Carcinoma | 449 |
| 16 Carcinoma with Micropapilla | 478 |
| 17 Squamous Carcinoma | 538 |
| 18 Mucinous Carcinoma | 544 |
| 19 Apocrine Carcinoma | 556 |
| 20 Mammary Carcinomas with Embryonic Features | 570 |
| 21 Small Cell (Oat Cell) Carcinoma | 574 |
| 22 Secretory Carcinoma | 581 |



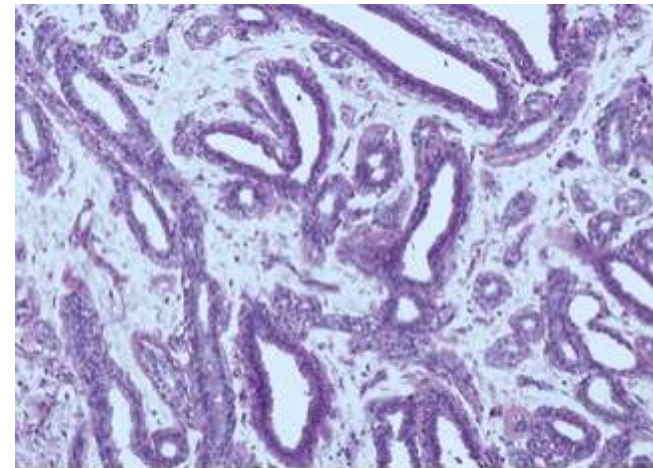
Microscopic Pathology

Several terms have been used to subclassify fibroadenomas. Large or giant fibroadenomas are histologically indistinguishable from their counterparts of average size. Tumors described by this term have included benign phyllodes tumor and hamartoma, and, therefore, the designation of giant fibroadenoma is best reserved to indicate the clinical presentation rather than a specific pathologic diagnosis. More than 90% of fibroadenomas are of the adult type, with the remainder fulfilling criteria for a diagnosis of juvenile fibroadenoma or other unusual variants of fibroadenoma.

Some tumors referred to as adenomas are unusual types of fibroadenomas. The so-called tubular adenoma (36) or pure adenoma (37) is a variant of pericanalicular fibroadenoma with an exceptionally prominent or florid adenosis-like epithelial proliferation (Figs. 8.6 and 8.7). The clinical presentation as a nodule, circumscribed painless mass is

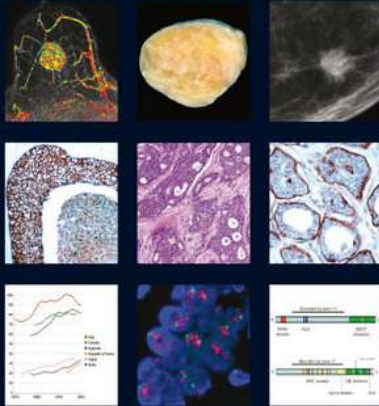
indistinguishable from that of a typical fibroadenoma. These tumors are not associated with pregnancy or oral contraceptive use (38). They tend to be softer than the average fibroadenoma and tan rather than white. Microscopic examination reveals closely approximated round or oval glandular structures composed of a single layer of epithelium supported by a layer of myoepithelial cells. A small amount of secretion is frequently present in the glandular lumens, even in tumors from patients who are not pregnant or taking oral contraceptives (39). This secretion is not immunoreactive for α -lactalbumin (40). Foci of florid adenosis can be encountered within a complex fibroadenoma.

Other so-called adenomas are unrelated to the fibroadenoma category. Apocrine adenomas are unrelated to the fibroadenoma category. Apocrine adenoma is a localized nodular focus of prominent papillary and cystic apocrine metaplasia (41,42). Nodular foci of sclerosing adenosis with apocrine metaplasia have been variously termed apocrine adenoma.



WHO Classification of Tumours of the Breast

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



Benign epithelial proliferations

Sclerosing adenosis
Apocrine adenosis
Microglandular adenosis

Radial scar/complex sclerosing lesion Adenomas

| | |
|-------------------|--------|
| Tubular adenoma | 8211/0 |
| Lactating adenoma | 8204/0 |
| Apocrine adenoma | 8401/0 |
| Ductal adenoma | 8503/0 |

J.F. Simpson
F. O'Malley

Histopathology

The lesions are well-circumscribed and composed entirely of small round tubules, lined by uniform epithelial cells with surrounding myoepithelial cells and separated by little intervening stroma. The latter may contain a few lymphocytes. Mitotic activity is usually low. The tubular lumina are usually empty, but may rarely contain proteinaceous material or mucin [215].

Genetics

There are no available data on the genetic features of these lesions.

Prognosis and predictive factors

Tubular adenomas are benign lesions with no known risk of recurrence when completely excised. There is no associated risk of developing carcinoma. Rarely, carcinoma can involve a tubular adenoma [576]; this seems to be a fortuitous association.

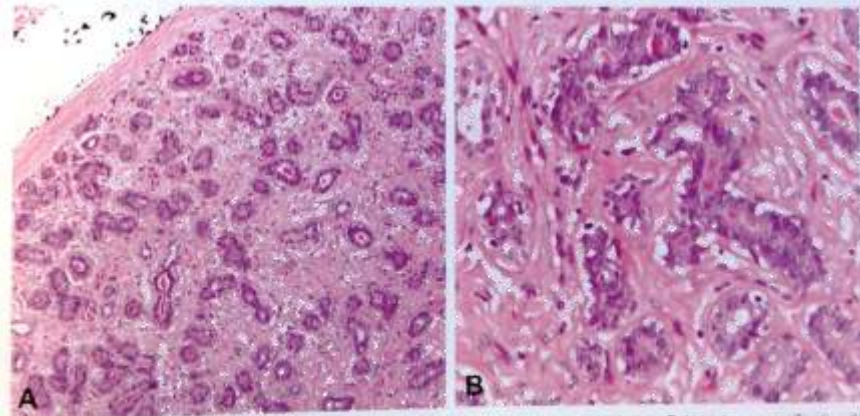


Fig.8.08 Tubular adenoma. **A** A circumscribed nodule composed of well-formed tubules. **B** At higher magnification the glands are lined by regular epithelial and myoepithelial cells.

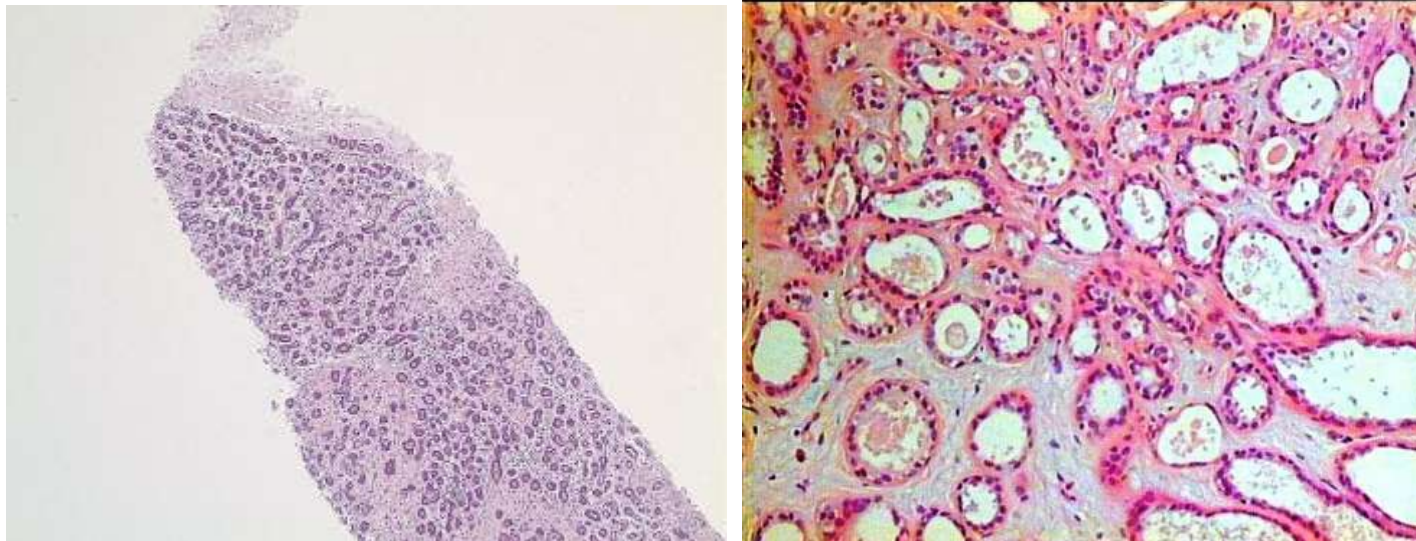
SYMPOSIUM: PATHOLOGY OF BENIGN BREAST DISEASE
DIAGNOSTIC HISTOPATHOLOGY 15:8 © 2009 Elsevier Ltd. All rights reserved.

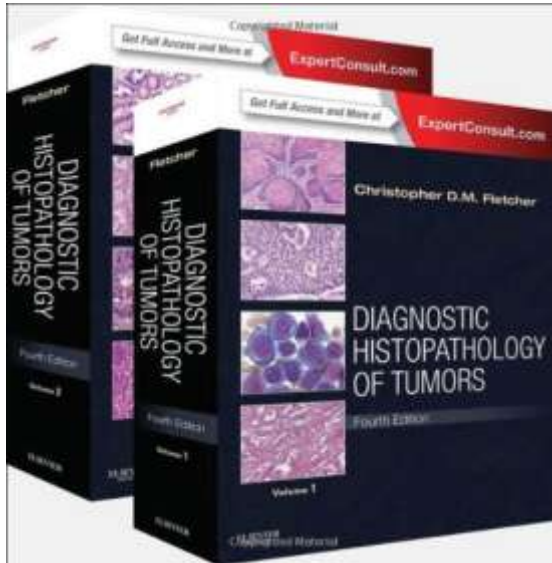
Fibroepithelial neoplasms of the breast

Andrew M Hanby

Tubular Adenoma of the Breast: A Rare Presentation and Review of the Literature

Nikolaos S. Salemis^{a,b,d}, Georgios Gemenetzi^b, Gregorios Karagkiouzi^b,
Charalambos Seretis^b, Konstantinos Sapounas^c, Vlasios Tsantilas^{a,b},
Dimitrios Sambaziotis^c, Emmanuel Lagoudianakis^{a,b}





Ellis, Lee, Pinder i Rakha (2013)

Tubular Adenoma

Although most authorities have now accepted the entity of a pure mammary adenoma,^{27,38,43} Rosen²⁸ considers tubular adenoma to be an unusual type of fibroadenoma. It is true that some fibroadenomas contain focal areas with a tubular structure, but we exclude such cases by following the strict morphologic criteria laid down by Hertel and colleagues.⁴⁴ They emphasized the well-circumscribed nature of the lesion composed of closely packed tubules with very little associated stroma. The nature of the so-called pregnancy or lactating adenoma is also dubious. The great majority of lesions given this label are in fact simply nodules of physiologic lobular proliferation that become more prominent than the adjacent breast tissue and may appear clinically to be a distinct mass.⁴⁵ Very rarely they may indeed be true tubular adenomas that undergo hyperplasia as a result of hormonal stimulation during pregnancy.⁴⁶

“Proliferacions Epitelials Benignes”:

WHO (2012, M.P. Foschini, J.F. Simpson, F. O’Malley)

Adenosi Esclerosant
Adenosi Apocrina
Adenosi Microglandular
Cicatriu Radial/Lesió Esclerosant Complexe
Adenomes:

- ➔ Adenoma Tubular: 8211/0
- Adenoma de Lactància: 8204/0
- Adenoma Apocrí: 8401/0
- Adenoma Ductal: 8503/0

“Fibroadenoma, Variants i Condicions Relacionades”:

Ellis, Lee, Pinder i Rakha (2013)

Fibroadenoma, Variants i Condicions Relacionades:

Fibroadenoma
Fibroadenoma Juvenil
➔ Adenoma Tubular
Hamartoma
Tumor Phyllodes

Lesions Esclerosants

Adenosi Esclerosant
Adenosi Microglandular
Cicatriu Radial i Lesió Esclerosant Complexe

Papil·loma Ductal i Condicions Relacionades

Papil·loma Ductal
Adenoma del Mugró
Adenoma Ductal

“Lesions Fibroepitelials”:

Stuart Schnitt i Laura Collins (2013)

Fibroadenoma

Variants de Fibroadenoma

Fibroadenoma Complexe
Fibroadenoma Juvenil
Canvis Fibroadenomatosos

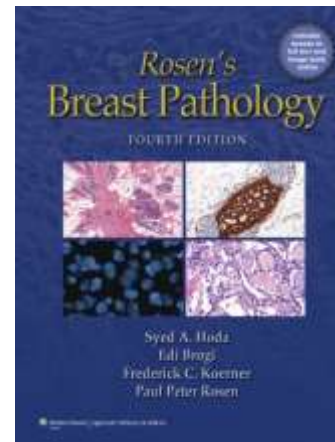
Adenomes:

- ➔ Adenoma Tubular
- Adenoma de Lactància
- Adenoma Apocrí
- Altres tipus d’Adenoma
(Variants de Papil·loma Intraductal)
Adenoma Ductal
Adenoma pleomòrfic

Hamartoma

Tumor Phyllodes

Pub Date: Mar 6, 2014



5 Papilloma and Related Benign Lesions
Frederick C. Koerner

6 Myoepithelial Neoplasms
Edi Brogi

7 Adenosis and Microglandular Adenosis
Edi Brogi

8 Fibroepithelial Neoplasms ➔
Edi Brogi

ADENOMA TUBULAR

- Proliferació epitelial benigne
- No és factor de risc de carcinoma
- No hi ha dades d'alteracions genètiques
- No relacionat amb embaràs
- Variant de FAD pericanalicular?



Hospital Universitari de Girona
Doctor Josep Trueta

Gràcies

