

1 The Normal Breast

1.1	Anatomy	2
1.2	Pregnancy and Lactation	2
1.3	Menopause	3
1.4	Immunoprofile	3
1.5	Further Reading	3

2 Specimen Processing

2.1	Frozen Section	8
2.2	Core Needle Biopsy	9
2.3	Excisional Biopsy	10
2.4	Mastectomy	11
2.5	Axillary Lymph Nodes	11
2.6	Sentinel Lymph Nodes	12
2.7	Further Reading	12

3 Fibrocystic Change and Duct Ectasia

3.1	Fibrocystic Change	16
3.2	Duct Ectasia (Periductal Mastitis)	17

4 Adenosis

4.1	Definition, Types, and Macroscopy of Adenosis	28
4.2	Blunt Duct Adenosis	28
4.3	Sclerosing Adenosis	29
4.4	Apocrine Adenosis (Adenosis with Apocrine Metaplasia)	30
4.5	Tubular Adenosis	31
4.6	Adenomyoepithelial Adenosis	31
4.7	Microglandular Adenosis	32
4.8	Radial Scar/Complex Sclerosing Lesion	32
4.9	Collagenous Spherulosis	34

5 Intraductal Proliferative Lesions

5.1	Usual Ductal Hyperplasia	68
5.2	Ductal Intraepithelial Neoplasia (DIN)	70
5.3	Ductal Intraepithelial Neoplasia (DIN), Flat Type	72
5.4	Low-Grade Ductal Intraepithelial Neoplasia (WHO: DIN1b; Atypical Ductal Hyperplasia)	74
5.5	Ductal Intraepithelial Neoplasia (WHO: DIN1c–DIN3, DCIS)	76

6 Intraductal Papillary Neoplasms

6.1	Central Papilloma	124
6.2	Peripheral Papilloma	124
6.3	Sclerosing Papilloma	125
6.4	Intraductal Papillary Carcinoma (Papillary Ductal Intraepithelial Neoplasia)	125
6.5	Role of Immunohistochemistry in Diagnosing Intraductal Papillary Neoplasms	126
6.6	Additional Comments	126
6.7	Further Reading	127

7 Lobular Intraepithelial Neoplasia (LIN)

7.1	Synonyms	156
7.2	Background	156
7.3	Microscopic Features	156
7.4	Additional Comments	156
7.5	Further Reading	157

8 Infiltrating Ductal Carcinoma (NOS Type)

8.1	Definition	180
8.2	Macroscopy	180
8.3	Microscopic Features	180
8.4	Grading	180
8.5	Additional Comments	181
8.6	Further Reading	181

9 Invasive Lobular Carcinoma (ILC)

9.1	Macroscopy	192
9.2	Microscopic Features	192
9.3	Additional Comments	192
9.4	Immunohistochemistry of LIN and ILC	192
9.5	Grading	192
9.6	Further Reading	193

10 Special Types of Breast Carcinomas

10.1	Tubular Carcinoma	223
10.2	Mucin-Producing Carcinomas of the Breast	224
10.3	Carcinoma with Neuroendocrine Differentiation	226
10.4	Invasive Papillary Carcinoma	227
10.5	Invasive Micropapillary Carcinoma	227
10.6	Apocrine Carcinoma	228
10.7	Secretory Carcinoma	229
10.8	Adenoid Cystic Carcinoma	230
10.9	Acinic Cell Carcinoma	231
10.10	Sebaceous Carcinoma	232
10.11	Infiltrating Cribriform Carcinoma	232
10.12	Medullary Carcinoma	233
10.13	Metaplastic Carcinomas	234
10.14	Clear Cell (Glycogen-Rich) Carcinoma	237
10.15	Lipid-Rich Carcinoma (Lipid-Secreting Carcinoma)	238
10.16	Metastatic Carcinoma	238
10.17	Inflammatory Carcinoma	239

11 Biphasic Tumors

11.1	Fibroadenoma	320
11.2	Phylloides Tumor	321

12 Diseases of the Nipple

12.1	Paget's Disease	352
12.2	Nipple Duct Adenoma	353
12.3	(Infiltrating) Syringomatous Adenoma	354

13 Male Breast Lesions

13.1	Gynecomastia	366
13.2	Papilloma	367
13.3	Primary Male Breast Carcinoma	367
13.4	Further Reading	367

14 Mesenchymal Lesions/Tumors

14.1	Stromal Elastosis	377
14.2	Fat Necrosis	377
14.3	Metaplasias	378
14.4	Pseudoangiomatous Stromal Hyperplasia	378
14.5	Fibromatosis	379
14.6	Myofibroblastoma	380
14.7	Lipoma	381
14.8	Angiolipoma	381
14.9	Granular Cell Tumor	382
14.10	Hamartoma	383
14.11	Perilobular Hemangioma	383
14.12	Hemangioma	384
14.13	Angiomatosis	384
14.14	Angiosarcoma	385
14.15	Leiomyosarcoma	386
14.16	Liposarcoma	387
14.17	Rhabdomyosarcoma	387
14.18	Malignant Fibrous Histiocytoma	388
14.19	Osteosarcoma	389
14.20	Spindle Cell Sarcoma, Not Otherwise Specified (NOS-Type Mammary Sarcoma)	389

15 Myoepithelial Lesions/Neoplasms

15.1	Background	410
15.2	Immunoprofile	410
15.3	Myoepithelial Cell Hypertrophy	410
15.4	Myoepitheliosis (Myoepithelial Hyperplasia)	411
15.5	Adenomyoepithelioma	411
15.6	Sarcomatoid Carcinoma with Myoepithelial Differentiation (Myoepithelial Carcinoma, Malignant Myoepithelioma)	412

16 Miscellaneous Lesions

16.1	Acute Mastitis (Puerperal Mastitis)	420
16.2	Subareolar Abscess	420
16.3	Plasma Cell Mastitis	420
16.4	Idiopathic Granulomatous Mastitis	421
16.5	Lymphocytic Mastitis (Diabetic Mastopathy)	421
16.6	Eosinophilic Mastitis	422
16.7	Silicone Mastitis and Diseases Associated with Cosmetic Augmentation	422
16.8	Further Reading	422
16.9	Pathologic Effects of Adjuvant Radiotherapy	423
16.10	Pathologic Effects of (Neo)adjuvant Chemotherapy	423
16.11	Malignant Lymphoma	424
16.12	Diffuse Large B-cell Lymphoma	424
16.13	Burkitt's Lymphoma	425
16.14	Extranodal Marginal-Zone B-cell Lymphoma of MALT Type	425
16.15	Follicular Lymphoma	425

17 Cytopathology of Benign and Malignant Lesions (Selected Topics)

17.1	Introduction	440
17.2	Fibrocystic Change	440
17.3	Proliferative Breast Diseases Without Atypia (Adenosis, Ductal Hyperplasia)	440
17.4	Proliferative Breast Lesions with Atypia	441
17.5	Lactating Adenoma and Lactating Changes	441
17.6	Fibroadenoma	441
17.7	Intraductal Papilloma	441
17.8	Ductal Intraepithelial Neoplasia (Ductal Carcinoma In Situ)	441
17.9	Lobular Intraepithelial Neoplasia	442

17.10	Intraductal Papillary Carcinoma	442
17.11	Infiltrating Ductal Carcinoma	442
17.12	Infiltrating Lobular Carcinoma	442
17.13	Tubular Carcinoma	443
17.14	Mucinous Carcinoma	443
17.15	Medullary Carcinoma	443
17.16	Apocrine Carcinoma	443
17.17	Adenoid Cystic Carcinoma	443
17.18	Metaplastic (Sarcomatoid) Carcinoma	444
17.19	Phylloides (Phyllodes) Tumor	444
17.20	Further Reading	444

18 Immunohistochemistry (Selected Topics)

18.1	Role of Immunohistochemistry in Diagnostic Breast Pathology	472
18.2	Immunohistochemistry in the Differential Diagnosis of Epithelial Lesions: Myoepithelial Cells	472
18.3	Carcinomas with Myoepithelial Differentiation Versus Primary Sarcoma	473
18.4	Microinvasive Carcinoma	473
18.5	Cell Population in Intraductal Proliferative Lesions: Homogeneous Versus Heterogeneous Cell Population (Neoplasia Versus Hyperplasia) . . .	473
18.6	Paget's Disease	474
18.7	Distinction Between DIN (DCIS) and LIN (LCIS) . . .	474
18.8	Systemic Metastasis of Breast Carcinoma	474
18.9	Micrometastatic Disease in Axillary Lymph Nodes (Including Sentinel Nodes)	474
18.10	Immunohistochemistry for Prognostic or Predictive Factors in Breast Carcinoma: Hormone Receptors	475
18.11	HER2/neu Overexpression	475
18.12	Further Reading	475

Subject Index	493
--------------------------------	------------