Textbook of Head and Neck Pathology

Margaret S. Brandwein

Textbook of Head and Neck Pathology

Volume 1: Nose, Paranasal Sinuses, and Nasopharynx

Springer

Margaret S. Brandwein
Erie County Medical Center
State University of New York at Buffalo
Buffalo
NY
USA

ISBN 978-3-319-33321-2 ISBN 978-3-319-33323-6 (eBook)
DOI 10.1007/978-3-319-33323-6

Library of Congress Control Number: 2016951646

© Springer International Publishing Switzerland 2016

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made.

Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer International Publishing AG Switzerland

To my children and grandchildren, the light of my eyes

Preface

Each world contains a myriad of smaller worlds.

We choose the scale in which we dwell; perhaps, it selects us before we choose it. We pathologists are among a tiny cadre who can hear the whispering of glass slides. Hold a glass slide up to the air, you see a name, an institution, numbers, and tissue pieces. Put the glass on a micro-

scope stage, and magic unfolds. The tissue holds worlds of stories, time lines of disease processes, symptoms, suffering, treatments, both successful and unsuccessful, and predictions. Imagine the worlds of information we glean from slides; now imagine the worlds we have yet to discover. This is our world. We only have to sit quietly, look, and listen to the whispering of slides.

Acknowledgment

Special thanks to Dr. Nestor Rigual for helpful review and feedback

Contents

1	Sinonasal Tract – Anatomy and Histology	1
	Self Study.....	9
	Answers.....	10
	References.....	10
2	Sinonasal Tract: Nonneoplastic	11
2.1	Polyps and Sinusitis	12
2.2	Cystic Fibrosis	15
2.3	Antrochoanal Polyps	15
2.4	The Spectrum of Sinonasal Fungal Disease	16
2.4.1	Allergic Fungal Sinusitis.....	17
2.4.2	Fungus Ball.....	17
2.4.3	Acute Invasive Fungal Sinusitis	18
2.4.4	Granulomatous Invasive Fungal Disease.....	20
2.5	Rhinoscleroma	21
2.6	Rhinosporidiosis	24
2.7	Myospherulosis	25
2.8	Granulomatosis with Polyangiitis	25
	Self Study.....	31
	Answers.....	31
	References.....	32
3	Sinonasal Tract – Benign	35
3.1	Respiratory Epithelial Adenomatoid Hamartoma (REAH)	36
3.2	Sinonasal Seromucinous Hamartoma	38
3.3	Exophytic Papillomas	38
3.4	Inverted Papillomas	39
3.5	Oncocytic Schneiderian Papilloma	43
3.6	Carcinoma-ex-inverted Papilloma	44
3.7	Neurofibromas	47
3.8	Schwannomas	48
3.9	Meningiomas	50
3.10	Nasal Glial Heterotopia (NGH)	52
3.11	Osteomas	53
	Self Study.....	56
	Answers.....	58
	References.....	59
4	Sinonasal Malignancies	61
4.1	Small Blue Round Cell ± Basaloid	62
4.1.1	Sinonasal Undifferentiated Carcinoma (SNUC)	62
4.1.2	BRD4-NUT Translocation Midline Carcinoma (Nut Midline Carcinoma, NMC)	65
4.1.3	Sinonasal Human Papillomavirus-Related Adenoid-Cystic-Like Carcinoma.....	66
4.2	Small Blue Round Cell ± Epithelioid	67
4.2.1	Transitional Variant Squamous Carcinoma.....	67
4.2.2	Sinonasal Melanoma (SNM).....	68
4.2.3	Dendritic Cell Sarcoma.....	73

4.2.4	Extramedullary Plasmacytoma.....	76
4.2.5	Sinonasal T-Cell and B-Cell Lymphomas.....	77
4.3	Small Blue Round Cell ± Rhabdoid ± Myxoid	80
4.3.1	Rhabdomyosarcoma.....	80
4.3.2	INI-Deficient Sinonasal Carcinoma.....	86
4.3.3	Sinonasal Low-Grade Myxoid Neoplasia.....	86
4.4	Small Blue Round Cell Neuronal/Neuroendocrine	88
4.4.1	Olfactory Neuroblastoma.....	88
4.4.2	PNET (Primitive Nerve Sheath Tumor)/ES (Ewings' Sarcoma) or EFT (Ewing Family of Tumors).....	91
4.4.3	Sinonasal Neuroendocrine Carcinoma (SNEC).....	93
4.5	Glandular	96
4.5.1	Intestinal Type Adenocarcinoma (ITAC).....	96
4.5.2	Sinonasal Adenocarcinoma, (SNAC) Non Intestinal Type (Not Otherwise Specified).....	100
4.5.3	Sinonasal Renal Cell-Like Adenocarcinoma.....	101
4.5.4	Sinonasal Teratocarcinosarcoma (Malignant Teratoma, Teratocarcinoma).....	103
4.6	Spindle Cell	105
4.6.1	Sinonasal Hemangiopericytoma (Glomangiopericytoma).....	105
4.6.2	Solitary Fibrous Tumor.....	108
4.6.3	Fibrosarcoma/Myofibrosarcoma/Biphenotypic Sinonasal Sarcoma/Low-Grade Sinonasal Sarcoma with Neural and Myogenic Features.....	110
	Self Study.....	112
	Answers.....	118
	References.....	119
5	Nasopharynx and Skull Base	127
5.1	Anatomy and Histology	128
5.2	Tornwaldt's Cyst and Other Cysts	132
5.3	Hairy Polyps and Teratomas	133
5.4	Nasopharyngeal Angiofibroma	135
5.5	Salivary Gland Anlage Tumor (Nasopharyngeal Congenital Pleomorphic Adenoma)	139
5.6	Craniopharyngioma (Rathke's Pouch Tumor)	141
5.7	Ectopic Pituitary Adenomas and Macroadenomas	142
5.8	Chordoma and Ecchordosis Physaliphora	145
5.9	Nasopharyngeal Carcinoma	149
5.10	Post Transplant Lymphoproliferative Disease – Adenoids	154
5.11	Thyroid-Like Low-Grade Nasopharyngeal Papillary Adenocarcinoma	155
	Self Study.....	158
	Answers.....	160
	References.....	161
	Index	167