

# TUBERCULOSIS OBSTETRICS A N D GYNECOLOGY

by GEORGE SCHAEFER M.D., F.A.C.S., F.I.C.S.

Assistant Professor of Clinical Obstetrics and Gynecology, Cornell University Medical College; Attending Obstetrician and Gynecologist, Triboro Hospital; Diplomate American Board of Obstetrics and Gynecology; Fellow American Academy of Obstetrics and Gynecology; Fellow American Trudeau Society

1111/

WITH 58 HALFTONE ILLUSTRATIONS



LITTLE, BROWN AND COMPANY
BOSTON • TORONTO

## COPYRIGHT, ©, 1956, BY GEORGE SCHAEFER

ALL RIGHTS RESERVED. NO PART OF THIS BOOK IN EXCESS OF THREE HUNDRED WORDS MAY BE REPRODUCED IN ANY FORM WITHOUT PERMISSION IN WRITING FROM THE PUBLISHER

LIBRARY OF CONGRESS CATALOG CARD NO. 56-8851

FIRST EDITION

Published simultaneously in Canada by Little, Brown & Company (Canada) Limited. Published in Great Britain by J. & A. Churchill Ltd., London.

PRINTED IN THE UNITED STATES OF AMERICA

Tuberculosis
in Obstetrics
and Gynecology

### PREFACE

Before the recent advances in the medical and surgical treatment of tuberculosis stimulated a renewed interest in this disease, the management of the tuberculous patient was almost exclusively the domain of the phthisiologist. The advent of antimicrobial and surgical therapy has brought many of these patients from sanatoria, where they were previously treated, into general hospitals, where other physicians have taken part in the responsibility of their management. In 1952 the total number of new cases reported to health departments in the United States was over 100,000, of which approximately 85,000 were active or probably active. A large number of cases are undoubtedly unrecognized and unreported.

The fact that tuberculosis may affect any organ in the body, may exist without manifesting clinical signs or symptoms, and may recur after being apparently arrested makes an understanding of the disease of great importance to every practitioner and specialist. Of the changes that have occurred in the management of the tuberculous patient, few have been so marked as those in obstetrics and gynecology. Routine antenatal roentgenograms have led to the discovery of many unsuspected cases of tuberculosis, so that at least 32,000 pregnant women with known tuberculosis are delivered in the

vi Preface

United States annually. No longer is tuberculosis considered an indication for therapeutic abortion or cesarean section. The more frequent use of endometrial biopsy and curettage, as well as of uterosalpingography, in the investigation of genital problems has resulted in the diagnosis of pelvic tuberculosis more frequently than was possible in the past. An entirely new group of cases of genital tuberculosis, the so-called "latent" or "unsuspected" type, have been brought to light. The knowledge that tuberculosis may exist in the genital tract without obvious clinical signs has led pathologists and bacteriologists to supplement their studies with bacteriologic methods. The latter methods have on occasion given positive results when other tests were negative for tuberculosis.

This book is an attempt to explain the present status of tuberculosis in obstetrics and gynecology to the general practitioner, the obstetrician and gynecologist, and the phthisiologist. This is perhaps a presumptuous undertaking for an obstetrician and gynecologist. In the introductory chapter a brief review of tuberculosis in general and its treatment is presented to serve as a background for the material subsequently covered. It will enable the obstetrician and gynecologist to review the medical aspects of the disease. The final answers to many of the problems are not yet at hand. As a matter of fact, a number of revisions in the text were made in the past few months on the basis of recent reports in the literature relating to bacteriology and to microbial therapy. The opinions expressed are gathered from the experience of over seventeen years at two large tuberculosis hospitals, Sea View and Triboro, as well as at two large general hospitals, the Queens General Medical Center and the New York Hospital. In the

Preface vii

preparation of this book the author has endeavored to keep in mind the importance of simplicity and lucidity in the presentation of facts, and to limit judiciously the material selected. A bewildering amount of research has been published recently, and is being published at the present time, on treatment, bacteriology, epidemiology, immunology, and on the tubercle bacillus itself. The difficulty of fairly evaluating the conflicting results is apparent. The author has assumed the responsibility of sifting the evidence and emphasizing those conclusions that appear to be most justified.

For the past few years the author has attended the weekly medical-surgical conferences at Triboro Hospital, and the teachings of that group, which consists of Harry H. Epstein, Richard H. Bennett, Lawrence Miscall, and J. M. Chamberlain, are reflected in this book. I am particularly indebted to Dr. Harry H. Epstein, Dr. Walsh McDermott, and Dr. Ralph Tompsett for their opinions on some of the medical aspects of tuberculosis. Dr. R. Gordon Douglas, Professor of Obstetrics and Gynecology at Cornell University Medical College, read portions of the manuscript and gave valuable advice. He also made available the facilities and wards of the New York Lying-In Hospital, from which a great deal of information was obtained. Dr. Oscar Auerbach, formerly Pathologist at Sea View Hospital, was kind enough to review some of the microscopic sections. Dr. Carl T. Javert, Pathologist at the Women's Clinic of the New York Lying-In Hospital, was most helpful in supplying slides of various lesions.

I am indebted to Dr. Nicholson J. Eastman, Professor of Obstetrics at the Johns Hopkins Medical School, who suggested that I write this book and who introduced me to the publishers, Little, Brown and Company; and to my wife, who viii Preface

prepared the drawings, graphs, and photographs, and who tolerated the periods of irritability that accompanied the final stages of rewriting.

GEORGE SCHAEFER, M.D.

Forest Hills, N.Y. January, 1956

### INTRODUCTION

wo decades have passed since the publication in the English language of a book on tuberculosis as it relates to obstetrics and gynecology. During this period monumental advances have been made in our knowledge of this disease in the fields of diagnosis, immunology, and especially in therapy. While many problems remain unsolved, a vast literature has appeared in recent years, largely as a result of revolutionary methods of treatment. It is almost impossible for the busy obstetrician and gynecologist to read this material and arrive at the proper plan of management in a given patient. Moreover, it is sometimes difficult for the phthisiologist to become conversant with all phases of the problems of tuberculosis encountered in obstetrical and gynecological practice. The author has very ably presented this newer knowledge in a practical and concise fashion. The diagnostic and therapeutic principles advocated are those actually being employed currently on our service at the New York Lying-In Hospital.

I have known Dr. Schaefer for more than twenty years and consider him eminently qualified to present this subject to students, practitioners, obstetricians, gynecologists and phthisiologists. First, he has been interested in this subject since his graduation from Cornell Medical School and has accumulated a vast and unusual clinical experience in two large tuberculosis hospitals. Second, he has intimate knowledge of

x Introduction

workers in this field in both the United States and foreign countries, not only through the medium of their writings, but by his personal contact with many of them, which has enabled him to evaluate the views of others. Third, the author contracted the disease while working in this field and was subjected to the most modern methods of therapy. In this connection I shall always remember a special lecture entitled "Typhoid Fever from Within" given to the undergraduate student body at McGill University more than thirty years ago by an eminent internist and teacher who had seen many hundred of patients with typhoid fever. The newer knowledge acquired by his personal experience was most revealing. I am sure that Dr. Schaefer likewise has benefited in the way of a more profound understanding of this disease.

Dr. Schaefer has been directly responsible for the supervision of obstetrical and gynecological patients with this complication in both the clinic service and in the in-patient department of the New York Lying-In Hospital for the past five years. While "of making many books there is no end," this experience has convinced him of the desirability of bringing together the many recent advances and sometimes conflicting views, with his own interpretation, in one volume for those interested.

R. GORDON DOUGLAS, M.D. Cornell University Medical College New York

# **CONTENTS**

	Preface Introduction	v ix
1	GENERAL ASPECTS OF TUBERCULOSIS AND ITS TREATMENT	3
	The Tubercle Bacillus	3
	Pathology of Pulmonary Tuberculosis	4
	Primary Tuberculosis	5
	Reinfection or Adult Tuberculosis	5
	Present-Day Concepts in Treatment	6
	Bed Rest	7
	Antimicrobial Therapy	7
	Surgery	11
	PART I	
	Tuberculosis in Obstetrics	
2	INCIDENCE OF TUBERCULOSIS COMPLI- CATING PREGNANCY AND CHILDBIRTH	17
	Active and Inactive Tuberculosis	20
	Extrapulmonary Tuberculosis	2
	Age	23
	Parity	24
	xi	

xii	Contents

2222		
3	ANTEPARTUM CARE OF THE TUBERCU-	
	LOUS WOMAN	27
	Medical Treatment	27
	Bed Rest	28
	Antimicrobial Therapy	29
	Surgical Treatment	34
	Pneumothorax	34
	Thoracoplasty	35
	Segmental Resection	36
	Lobectomy	37
	Pneumonectomy	46
	Pneumoperitoneum	47
4	MANAGEMENT OF LABOR IN TUBERCU-	
	LOSIS	54
	Analgesia and Anesthesia	54
	Duration of Labor	55
	Type of Delivery	57
5	MANAGEMENT OF THE PUERPERIUM	62
	Rest	62
	Reasons for Progression of Tuberculosis	64
	Breast Feeding	65
	Effects of Hormones on Tuberculosis	66
	Prophylactic Use of Pneumoperitoneum	68
	Socioeconomic Problems	69
6	EFFECTS OF PREGNANCY AND CHILD-	
	BIRTH ON TUBERCULOSIS	72
	During Pregnancy	73
	Results After Delivery	75

Contents		XIII
	Results After 3 Months or Longer	77
	Effects of Parity	78
	Unfavorable Influences	79
	Pulmonary Function During Pregnancy	80
7	FATE OF INFANTS OF TUBERCULOUS	
	MOTHERS	85
	Weight	85
	Prematurity	87
	Congenital Tuberculosis	88
	Tuberculosis of the Placenta	89
	BCG Vaccination	91
8	EXTRAPULMONARY TUBERCULOSIS	
	AND PREGNANCY	97
	Osseous	98
	Renal	99
	Glandular	100
	Intestinal	101
	Miliary	102
	Pericardial	103
	Genital	103
9	THERAPEUTIC ABORTION IN TUBERCU-	
	LOSIS	115
	Indications	116
	Difficulties in Follow-up	120
	Comparison with Full-Term and Premature De-	
	livery	122

xiv		Contents
	In Active Tuberculosis	123
	In Inactive Tuberculosis	125
	Type of Procedure	126
	Spontaneous Abortion	127
10	TUBERCULOSIS OF THE BREAST	130
	Incidence	130
	Age of Patients	131
	Pathogenesis	132
	Predisposing Factors	134
	Pathology	136
	Bacteriologic Diagnosis	138
	Symptoms and Signs	140
	Roentgenographic Study	142
	Differential Diagnosis	142
	Treatment	144
	PART II	
	Tuberculosis in Gynecology	
	(Tuberculosis of the Female Genital Tract)	)
11	INCIDENCE AND LOCALIZATION	151
11		
	Pulmonary Lesions with Genital Tuberculosis Extrapulmonary Lesions with Genital Tuberc	155 cu-
	losis	156
	Coexistence of Renal and Genital Tuberculosis	157
	Genital and Peritoneal Tuberculosis	158
	Organs Involved in Genital Tuberculosis	159
	Age of Patients	161

Contents	X	(V

12	PATHOGENESIS OF GENITAL TUBERCU- LOSIS	167
	Primary Infection	167 169
	Secondary Infection  Mode of Spread from Tubes to Uterus and Over	109
	Mode of Spread from Tubes to Uterus and Ova- ries	172
		172
	Time of Infection of Genital Organs	173
13	PATHOLOGY	178
	Genital Tuberculosis as Seen at Operation	178
	Classification	179
	Peritoneal Tuberculosis	180
	Tuberculosis of the Fallopian Tubes	182
	Tuberculosis of the Uterus	194
	Tuberculosis of the Cervix	198
	Tuberculosis of the Ovaries	201
	Tuberculosis of the Vulva	204
	Tuberculosis of Bartholin's Gland	206
	Tuberculosis of the Vagina	206
14	CLINICAL DIAGNOSIS	212
	History	212
	Duration of Symptoms	215
	Symptoms	216
	Signs	217
15	LABORATORY AIDS IN DIAGNOSIS	222
	Histologic Examination	222
	Bacteriologic Examination	229
	Roentgenographic Diagnosis	233
	Peritoneoscopy and Culdoscopy	245

xvi	C	ontents
	Examination of the Blood	245
	Tuberculin Test	247
16	TREATMENT OF TUBERCULOSIS OF THE	Ξ
	FEMALE GENITAL TRACT	252
	Hospital or Sanatorium Care	254
	Roentgen Ray and Radium Therapy	255
	Antibiotics	258
	Surgery	274
	Index	293

Tuberculosis in Obstetrics and Gynecology