



# NON-PULMONARY TUBERCULOSIS

by

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TO MY WIFE

## FOREWORD

THE chief value of this work lies in the fact that it has been written by a practical and shrewd observer of long experience with abundant clinical material at his disposal and exceptional facilities for dealing with it. Dr. Wilkinson is one of the few who, possessing operative skill, have the privilege of exercising that skill when required or of making full use of conservative methods of treatment.

I think I may safely say that all of us who have similar facilities will warmly endorse his views. In the strenuous life which we all must now adopt, the temptation to indulge in the short but hazardous cuts to cures is, at times, almost irresistible, but for full and final success sound judgement is essential. The experience of the author will be of inestimable value in guiding our management of the doubtful case. How often have I seen patients who have had arthrodesed spines and hips discharged early from hospital as cures when the disease was in its early evolution!

Dr. Wilkinson, in the most illuminating

manner, gives practical guidance as to the indications for operative interference and reduces surgery to its legitimate importance as an adjuvant to but not as sole means of cure. The indications for its utilization are convincingly and clearly described.

I would repeat that the supreme value of this book lies in the practical observation and personal experience of the author and is not derived from the dusty tomes which litter the shelves of the medical libraries. I wish it all success.

H. J. GAUVAIN

MORLAND CLINICS  
ALTON, HANTS

## PREFACE

NON-PULMONARY tuberculosis differs from phthisis chiefly in the prognosis, which for most non-pulmonary tuberculous lesions is good, provided that constitutional therapy has formed the basis of treatment. The value of constitutional treatment has long been recognised empirically, but it is confirmed by accurate knowledge of the pathogenesis of the disease, a subject upon which emphasis is laid in this book. Thus the function of both conservative and surgical methods of treatment can be clearly assessed.

The application of constitutional treatment to other diseases than tuberculosis is a subject which I hope will be raised in the minds of some readers. The war has dispersed hospital work from the cities through the sectors and the regions. In some cases this has meant a change for the sick from the worst to the best surroundings. Provided that medical and nursing standards are not impaired by the change, good should result.

No reference is made in this work to the pathology of phthisis, but pulmonary tuberculosis

occurring as part of a haematogenous infection is considered. The relationship of phthisis to tuberculosis of haematogenous origin does not appear to be clearly understood, but it is a problem the solution of which might have fruitful results. My chief aim has been to describe principles and methods of treatment which have been extensively tested and not found wanting. Other matters, for example symptomatology and differential diagnosis, have necessarily been touched upon, but not in such detail, for these aspects of the subject are sufficiently dealt with in the standard textbooks. The statistical material is based on the investigation and treatment of 593 patients during 1930-37 ; and on a detailed follow-up of a majority of these made with the help of the tuberculosis officers of the Essex County Council in 1938.

The work described is thus the fruit of the labours of many, and it is not the least reward of authorship that it enables one to acknowledge his debts in public. I should like to record my deep gratitude to Alderman P. Astins, J.P., Chairman of the Black Notley Sanatorium Sub-Committee of the Essex County Council, whose friendship is a source of inspiration to those who work under him. I should also like to thank Dr. W. A. Bullough, the County



Medical Officer of the Essex County Council, who bears the burden of administrative duties and who rejoices to see others reap where he has sown. I also record with appreciation the part played by the Tuberculosis Officers of the Essex County Council.

It has been an honour and a privilege to have been associated in the work with Sir Henry Gauvain. My grateful thanks are due to Dr. Burton Wood for his example and teaching, to Mr. Ronald Reid, my surgical colleague, for being a never failing help in trouble and in particular for his help in dealing with problems of genito-urinary surgery, to Dr. R. Chapman Cohen, Deputy Medical Superintendent, to Miss Slater, radiographer to the Sanatorium, and to my colleagues of the resident staff to whose skill and conscientious devotion to duty so much of the success herein recorded has been due. I should like to express my deep gratitude to Mr. W. T. Gordon Pugh, Mr. W. R. Bristow and others at whose feet I have been privileged to sit in the past ; to Dr. R. J. Cureton for his kindness in reading the proofs ; and to Dr. M. Newfield of Messrs. Hamish Hamilton, who by his freely offered help and advice has done so much to pilot this small craft safely to harbour.

I also wish to thank the editor of the *British*

*Medical Journal* for permission to use part of an article by Mr. Reid and myself describing the radical treatment of cervical adenitis (see p. 37); and the editor of the *Lancet* for permission to use the material in Tables XX and XXI.

Finally my indebtedness to the Matron and Nursing Staff cannot be too strongly expressed. The present times have emphasized the indispensable nature of their work. This is especially the case in the treatment of non-pulmonary tuberculosis, for it is by the nursing staff that constitutional treatment is carried out. Every effort should therefore be made to encourage nurses to take up this work, which, though arduous, is rewarded in the majority of cases by the certainty of good and lasting results.

M. C. WILKINSON

BLACK NOTLEY

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## CHAPTER I

# THE PATHOGENESIS OF NON-PULMONARY TUBERCULOSIS

### *Introduction*

TUBERCULOSIS has been divided into pulmonary and non-pulmonary or medical and surgical tuberculosis. These divisions are misleading. The large majority of patients who develop tuberculosis develop phthisis, a form of tuberculosis which will not be discussed in this book. Other patients develop tuberculosis outside the lungs and these may also have associated pulmonary tuberculosis. It is my purpose to record the forms that tuberculosis has taken, at different ages and in both sexes, in a series of five hundred and ninety-three patients admitted to a Sanatorium where non-pulmonary tuberculosis is treated, and to discuss their treatment both in the light of clinical experience and in relation to the pathogenesis of the disease.

Table I shows a classification of these patients according to the sites of their disease and their age and sex groups. This classification does not represent the incidence of non-pulmonary tuber-

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culosis in the population of the area at that time, because some patients were treated elsewhere—particularly infants who suffered from miliary tuberculosis and children who suffered from tuberculosis of the lymphatic glands. With these exceptions it will be seen from the table

TABLE I

SEX-AGE INCIDENCE OF PATIENTS ADMITTED FOR THE TREATMENT OF NON-PULMONARY TUBERCULOUS LESIONS

1930-1937

MALE								FEMALE									
Age	Cervical glands	Abdominal glands		Tuberculous peritonitis	Skeletal tuberculosis	Renal tuberculosis	Genital tuberculosis	Total	Cervical glands	Abdominal glands		Tuberculous peritonitis	Tuberculous salpingitis	Tuberculous caecum	Skeletal tuberculosis	Renal tuberculosis	Total
1-10	32	9	2	67	2	0		112	24	9	3	0	0	0	59	1	96
11-15	12	6	1	—	—	—		—	17	3	3	0	1	—	—	—	—
11-20	—	—	—	35	3	2		66	—	—	—	—	—	47	1	102	—
16-20	4	0	3	—	—	—		—	11	5	8	5	1	—	—	—	—
21-30	3	2	1	32	8	0		46	9	3	4	4	1	38	2	61	—
31-40	1	1	1	14	9	3		29	3	2	3	4	2	17	5	36	—
41-50	0	0	0	10	4	1		15	1	0	0	0	0	9	3	13	—
51-60	0	0	0	9	2	0		11	2	0	0	0	0	3	1	6	—
TOTAL	52	18	8	167	28	6		279	67	22	21	13	5	173	13	314	—



that skeletal tuberculosis is the most common form of non-pulmonary tuberculosis found at all ages, that renal tuberculosis occurred most frequently in young adult males, that abdominal tuberculosis occurred most frequently in young adult females, and that tuberculosis of the lymphatic glands occurred most frequently in children.

*Distinction between haematogenous and lymphatic lesions*

Calmette (1923) has argued on experimental and pathological evidence that the tubercle bacillus enters the body and may first be held up in the lymphatic glands, and that it may pass through the lymphatic chain into the blood stream, where it causes tuberculous bacillaemia. Tuberculosis may therefore become manifest clinically either as tuberculosis of the lymphatic glands or as tuberculosis of haematogenous origin. Tuberculosis of the lymphatic glands occurs most commonly as the result of primary tuberculous infection of the tonsils, the lungs or the intestines. Tuberculous lesions of haematogenous origin occur most frequently in the skeleton, the lungs, the genito-urinary system, the peritoneum, the salpinges, or the brain, or in the form of subcutaneous abscesses. An