

**A TREATISE ON
TUBERCULAR PHTHISIS, OR
PULMONARY
CONSUMPTION**

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A Treatise on Tubercular Phthisis, Or Pulmonary Consumption by James Clark

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JAMES CLARK

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BY
JAMES CLARK, M.D. F.R.S.

PHYSICIAN IN ORDINARY TO THEIR MAJESTIES THE KING AND QUEEN OF THE BELGIANS.

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TUBERCULAR PHTHISIS.

TUBERCULAR PHTHISIS, OR CONSUMPTION, PHTHISIS TUBERCULOSA, PHTHISIS PULMONALIS.

The term phthisis (*φθίσις*, from *φθίω*, *consumo*, *to waste*, or *decay*) was introduced into medicine when there existed little precise knowledge of the morbid condition upon which the emaciation and other characteristic symptoms of the disease depended. It was first used as a generic term to signify consumption of every kind, and was afterwards more distinctly specified according to the organ in which it was supposed to originate, as phthisis pulmonalis, phthisis hepatica, phthisis mesenterica, &c.; indeed it has even been applied to the wasting attendant on various diseases, as phthisis rheumatica, phthisis syphilitica, phthisis scorbutica, and many others. These indiscriminate appropriations of the term gave rise to much vagueness and confusion in its practical application. But as the knowledge of morbid anatomy became more precise, disease of the lungs was found to be most frequently connected with consumption; and hence phthisis pulmonalis not only attracted far greater attention than any other form of the disease, but a large proportion of the other species were found to resolve themselves into this, having been discovered to be mere complications of it. Phthisis pulmonalis was now divided into various species, according to the real or imaginary nature of the pulmonary disease upon which the symptoms were supposed to depend.

At length, Laennec, finding, in the course of his extensive researches into pulmonary diseases, that tubercles formed almost the universal cause of consumption, proposed to restrict the term phthisis to the disease produced by tubercles in the lungs; and since the publication of his great work in 1819, (an important era in our knowledge of pulmonary diseases,) the term has been so restricted in France. The accuracy of Laennec's opinions has been confirmed by the subsequent investigations of Louis and Andral, whose minute and laborious researches have given a precision to our knowledge of the

subject which was unknown before their time. But, notwithstanding the advantages which have resulted from the adoption of these views, they have tended to keep alive the idea that pulmonary phthisis is a local disease, referrible to a local cause: and thus the constitutional origin of tubercles, by far the most important part of the subject, has been neglected.

Before we can hope to acquire an accurate knowledge of consumption, we must carry our researches beyond those morbid alterations which constitute the pulmonary disease and are only a secondary affection,—the consequences of a pre-existing constitutional disorder, which is the necessary condition that determines the production of tubercles.

An imperfect acquaintance with the nature of tubercles and with the morbid state of the system in which they have their origin, has led to great discrepancy of opinion concerning the nature and causes of phthisis pulmonalis. There are many, even at the present day, who regard tuberculous disease of the lungs as the result of inflammation; an opinion which we consider as not only erroneous, but as having been productive of a very mischievous practice. Inflammation of a very mischievous practice. Inflammation of the respiratory organs may, and we believe often does give rise to tubercles, and unquestionably accelerates their progress; but we also believe inflammation to be incapable of producing tubercles in a healthy constitution.

Chronic inflammation of the different tissues of which the lungs are composed, is often accompanied with symptoms closely resembling those produced by tuberculous disease. Chronic bronchitis and chronic pleurisy afford examples of this kind; and the distinction between these and tuberculous disease of the lungs, becomes, in some cases, very difficult. Hence they have been, and still are often confounded, and considered, as regards each other, in the light of cause and effect. This error originates not in the nature of the subject, but in a want of correct observation; and we are of opinion that when the history of these inflammatory affections is carefully investigated, they may, in a very large proportion of cases, be discrim-

minated from pure tuberculous disease. That the distinction is not more frequently made is owing more to our own imperfect and careless inquiries into the history of the cases which come before us, and to our negligence in examining minutely all the signs and symptoms which they present, than to any real obscurity in the nature and characters of the diseases themselves. The truth is, that in the highly tuberculous constitution, tuberculous disease of the lungs very often occurs in a slow, insidious manner, and, in a large proportion of such cases, has made considerable progress before it manifests itself by any remarkable local symptoms, or is even suspected to exist by those who regard consumption as originating in inflammatory diseases of the lungs. In such examples of latent tuberculous disease, an attack of catarrh, a slight inflammation of the pleura or of the lungs, or hæmoptysis, is not unfrequently the first circumstance which excites the attention or awakens the fears of the patient and his friends; and to this accidental occurrence, to which the presence of tubercles in the lungs renders the person peculiarly liable, the origin and cause of all the future mischief is attributed. Nor is it surprising that an ordinary observer should arrive at such a conclusion; and, ascribing the disease to that which was first cognizable by his senses, should consider the "neglected cold," the "inflammation of the lungs," or the "breaking of a bloodvessel," the original cause of all the subsequent evil. But, after all the light which modern pathologists have thrown upon the nature, the diagnosis and prognosis of tuberculous disease, it may well excite surprise that medical men should still regard these affections as the chief causes of Phthisis. In a vast proportion of cases of this nature, a more minute inquiry into the patient's previous state of health, and a closer investigation of the symptoms, would have led to the conviction that long before the pneumonia, the hæmoptysis, or even catarrh, tuberculous disease of the lungs existed, and that those affections were consequent upon, or at least subsequent to, the existence of pulmonary tubercles, or had occurred in a tuberculous constitution by which their effects were modified. In another part of this article we shall state the grounds upon which this opinion rests, and at the same time endeavour to show that tuberculous disease of the lungs may be detected long before it generally is;—that what is usually considered the early is in reality an advanced stage of the disease;—and that tubercle, even in its nascent state, is, as has just been stated, a secondary affection, originating in, and dependent upon, a morbid condition of the general system, viz. tubercular cachexia.

Our principal object in this article is to take a comprehensive view of tuberculous phthisis as originating in a morbid state of the constitution; to inquire into its nature, origin, and causes as an hereditary affection; to point out those circumstances which are capable of inducing it at the different periods of life; and to attach the proper value to those pulmonary

diseases which are considered by some as the real causes of consumption, but by others, more correctly in our opinion, as merely determining causes, and often only complications. If we succeed in giving a satisfactory exposition of this, the most important, but hitherto most neglected part of our subject, we may hope to lay the foundation of a sounder pathology of tuberculous disease, and to establish a more rational and more effectual mode of prevention and treatment during that period of its progress in which medical treatment is of much avail, and a cure can be considered possible. For no physician, acquainted with the morbid anatomy of phthisis, can for a moment indulge the hope that we shall ever be able to cure what is usually termed "confirmed consumption," if we except the small proportion of cases in which the tuberculous deposit is confined within narrow limits. The state of the lungs in the advanced stage of phthisis is to be regarded as the result of a series of morbid processes which have terminated in the destruction of the organ; and we might as reasonably expect to restore vision when the organization of the eye is destroyed, or the functions of the brain when the substance of that organ is reduced by disease to a putaceous mass, as to cure a patient whose lungs have been extensively destroyed by tuberculous disease. "Quelle est la maladie qu'on guérit," asks Portal, "quand l'organe dans laquelle elle réside a souffert une désorganisation complète!"*

Had the labour and research that have been wasted in fruitless experiments to cure an irremediable condition of the lungs been directed to the discovery of the causes and nature of tuberculous disease, with the view of deducing rules for its prevention and treatment, consumption would be regarded in a light very different from that in which it is looked upon at the present period. Our view of tuberculous consumption comprehends not merely the period succeeding the actual development of pulmonary tubercles, but the whole course of the disease from the very commencement of the constitutional disorder. By a knowledge of this constitutional disorder, we may reasonably hope to prevent, in many cases, the occurrence of the disease, and, in a small proportion, to arrest its progress in its nascent state and even to remove its local effects: and if we go a step further back, and investigate the causes which give rise to the tuberculous diathesis in the parent, we may also hope to diminish the hereditary disposition in the offspring. This is, no doubt, opening a very wide field of inquiry; but it is most certain that, unless we enter into the subject in its fullest extent, we shall do little effectual towards diminishing the frequency, or reducing the mortality of this very prevalent and most destructive malady.

It is not, we believe, advancing too much when we state that, among the whole range of human infirmities, tuberculous diseases are the most deserving the study of the physician, whether we regard their immense

* *Sur la Phthisie*, Introduction.

frequency or appalling mortality. Confined to no country, age, sex, or condition of life, they destroy a larger proportion of mankind than all other chronic diseases taken together. In this country, and over the whole temperate region of Europe and America, tuberculous disease of the lungs causes probably a fifth part of the whole mortality; and in some districts, and even in whole countries, the proportion is much larger. It has been calculated by the late Dr. Young, Dr. Woolcombe, and others, from the best data which the bills of mortality afford, that in Great Britain and Ireland, consumption causes one fourth part of the deaths that occur from disease. If, then, we add to consumption, tuberculous disease of the glandular system, of the brain, of the large joints, of the spinal column, &c. and deduct the mortality which occurs during the first months of life, we shall probably be within the truth in stating that one third part of the mortality of this country arises from tuberculous diseases; and if to this frightful destruction of mankind we add the numerous crippled and disfigured sufferers whom we daily meet with, the blind, the deaf, and the maniacal, (for mania is not an infrequent consequence of this disease,) and, above all, the painful reflection that the predisposition to this destructive class of maladies is transmitted from the parent to the offspring,—we shall surely have no need to press upon medical practitioners the claim which tuberculous disease has, above all others, upon their earnest consideration.

A very important question in the history of tuberculous diseases naturally presents itself to our consideration in this place, viz. their increasing or decreasing frequency. Every member of the profession has too ample opportunities of satisfying himself of the extensive prevalence of strumous diseases; but some doubts may exist as to their being comparatively more prevalent at the present time than they were some fifty or a hundred years ago. By the bills of mortality, it would appear that the number of deaths from consumption in this country is less at present than thirty years since;* but the known inaccuracy of records of this kind should render us cautious in giving too implicit faith to conclusions drawn from such sources. The labouring classes of the population in this country are at present in a more comfortable state than they were half a century back: they fare better, are better clothed, and more comfortably lodged;—circumstances which are all favourable to health, and consequently to the diminution of tuberculous disease. Although we can in these circumstances perceive a probable cause of such diminution of tuberculous disease in the lower orders, we confess we have our doubts whether their more general indulgence in the use of ardent spirits has not prevented such abatement. But whether tuberculous diseases have diminished or not during the last half

century among the labouring part of our population, we are of opinion that they have increased in the upper and middle ranks of society. This is an inquiry of great moment. If it were clearly shown that the disease is gradually abating among all ranks of the people, we might perhaps leave it in the hope that its diminution would keep pace with the improvement of society. But if, on the contrary, we arrive at the conclusion that scrofulous disease is on the increase, or, in other words, that the health of the middle and upper ranks of society is progressively declining, we shall have the strongest reasons for inquiring into the causes which lead to such deterioration of health, with a view to obviate it.

That a general delicacy of constitution and a proneness to scrofulous diseases are on the increase, is a conclusion, the accuracy of which we leave to be decided by the experience of the profession. We have all an opportunity of observing and comparing the state of health of the rising generation with that of their fathers and grandfathers. On taking a survey of the constitution of these three generations, we think it will be found, in a large proportion of instances, that the deterioration of health is progressive from father to son. We are far from believing that this is invariably the case; but we do believe that it will be found generally so: at least, such is the conclusion to which we have been led from personal observation.

It is unnecessary in the present article to enter upon the consideration of the whole series of tuberculous diseases, as part of the subject has been already treated in this work. (See SCROFULA, TABES MESENTERICA, and more particularly the admirable article TUBERCLE.) But, although our chief object will be to enter more particularly into the history of pulmonary tubercle, our observations will apply to the whole class of tuberculous affections, more especially when treating of the nature, the causes, and treatment of the disease.

SECT. II.—OF THE TUBERCULOUS CONSTITUTION AND TUBERCULOUS CACHEXIA.

As we shall have frequent occasion, in the course of the present article, to refer to that morbid condition of the system which precedes and attends tuberculous disease, we shall commence by giving a brief view of the characters by which it may generally be recognised. It is right, however, to premise that these are so variously influenced by the age, complexion, temperament, and other circumstances of the individual, that it is a matter of considerable difficulty to describe them. It must also be observed that this morbid condition itself is progressive, and therefore varies in intensity.

The tuberculous constitution, when of hereditary origin, is manifested by a peculiar appearance of the countenance, by the form and development of the body, by the anomalous state of various important functions, and by a peculiar disposition to certain diseased actions. The aspect of the countenance generally affords decisive indications of the presence of the affection: in early childhood it has a pale, pasty appearance, the cheeks are generally full and

* Elements of Medical Statistics, by F. Bisset Hawkins, M.D.