THE GOULSTONIAN LECTURES

ON

THE NATURAL HISTORY OF PULMONARY CONSUMPTION.

Delivered at the Royal College of Physicians, London.

By A. B. SHEPHERD, M.A., M.B., F.R.C.P.,

Physician to the Victoria Park Hospital for Diseases of the Chest; Assistant Physician to St. Mary's Hospital; etc.

LECTURE II.—*Concluded.*

I PASS on to that form of phthisis which consists essentially in an extra-alveolar growth—in the proliferation of the fibroid septa of the alveoli. The main symptoms during life are still the symptoms of Morton's definition; but it has a different history in different cases, and its *post mortem* appearances vary, as I believe, with its history. The results *post mortem* are not altogether the same. The alcoholic is not precisely similar to the syphilitic; and both differ largely from that form which, whether in the typefounder, the stoneworker, or the excessive smoker, may be included under the term "anthracosis". Perfectly true it is, though I must say not universally true, that in all these cases there is the opportunity for and the tendency to that one form of dissipation—spirit-drinking—which might bring them all under the one definition of Dr. Sutton's "fibroid phthisis". Even then they would be varieties of one genus, in which the alcoholic poison was modified in a most distinct manner.

I can add nothing, except in the way of illustration, to that "fibroid degeneration of the lungs" which Dr. Sutton has described in the forty-eighth volume of the *Medico-Chirurgical Transactions*. But to this fibroid phthisis belongs, I think, a form very closely resembling that described by him and others, due, as I believe, to syphilis. In common with my friend and former colleague Dr. Bäumlér, now Professor of *Materia Medica* at Freiburg-in-Breisgau, I had almost taken it for granted as a form already recognised clinically, though up till very lately I had no great reason to search out any authorities on the subject. The pathological change in this form is quite distinct from that—if I may use the term—accidental occurrence of syphilitic deposits in which the lung, in common with other organs, reveals the presence of gummata of varying size and shape and in different stages of development. Clinically, these cases agree in the following points: absence of any hereditary history of consumption; distinct history of the syphilitic taint; cough, accompanied by very slight, if any, expectoration; dyspnoea more intense on exertion than the dyspnoea of ordinary phthisis, and more resembling that of emphysema and chronic bronchitis; great emaciation; marked clubbing of the nails; absence of diarrhoea, or any symptoms of intestinal ulceration; absence, too, of any signs of granular kidney. Add to all this that the patients were of well-made bodily structure, and had had good health for some time after the invasion and ordinary results of the syphilitic poison. By those who had not got beyond the idea that "phthisis pulmonaris" is always "tubercular", the decision, as I have had occasion to observe, was easy, though the physical signs were sometimes troublesome and contradictory. There was absence of dullness where dullness, theoretically, ought to have been; sometimes excessive resonance. There was no great alteration of the voice-sounds; there might be creaking at times here and there; there were no *râles* or crepitation (*see* Sutton, *loc. cit.*, p. 30); or in a more marked manner there were signs of induration at the apices, with those of emphysema and bronchitis. And, *post mortem*, the only lung-change found was what is represented in this drawing, which I lay, sir, before you: the lung almost everywhere indurated; slight dilatation of the bronchi, but not so marked as in the cases of fibroid disease described by Dr. Sutton; almost total disappearance of the alveoli from the fibroid proliferation of their septa; small bladders here and there of emphysema starting up among the hard gristly tissue, and accounting for the signs furnished by percussion and auscultation; small grape-like masses of chalky consistence, the remains of former vesicular pneumonias—or, more correctly, lobular bronchopneumonias—which have long ceased to influence, if they ever influence, the alveolar and bronchial walls; and, as in that case before you, the fresh pneumonia which, depriving the patient of his only breathing surface, gave the last stroke to an organ already hindered in its function. In the best-marked form, as in the very case a drawing of which I have placed in your hands, there is nothing like the milary tubercle, or the grey granulation, or even the yellow infiltration of authors, except it be represented by those obsolescent remnants of former

local inflammation: only this fibroid change, which to some writers of to-day represents—and the words lack the true scientific severity—"phthisis with its age forgotten". (*Path. Soc. Trans.*, vol. xxiv, page 313.)

I would have it distinctly understood that these cases of what I consider to be fibroid syphilitic phthisis are not to be confounded with the common type of phthisis, present by no means unfrequently in persons affected with syphilis, any more than they are to be placed in the same category with such cases as Dr. Wilks has described in the ninth volume of the *Transactions of the Pathological Society* (p. 55), in which fibroid isolated nodules occur. Lancereaux gives a list of various authors who have written on phthisis in combination with syphilis, and proceeds to speak of the form to which I am now referring as interstitial pneumonia (*Traité Historique et Pratique de la Syphilis*, 2nd ed., Paris, 1874, p. 329). He quotes a case reported by Vidal, in which a fibroid change had taken place in the lower lobes; and gives another observed by himself, in which the upper lobe of the left lung showed a radiating cicatrix; the lung-tissue fibrous, with numerous yellow points; the bronchi for the most part dilated or contracted, terminating in ampullary *culs-de-sac*. Dittrich, in the *Prager Vierteljahrsschrift* (1850, vol. ii, p. 42), writing on syphilitic affections of the liver, recognises the results of a "syphilitic pneumonia", with the same fibroid production, in a woman aged 27. Dr. Moxon, in the *Guy's Hospital Reports* for 1867, gives, in a "Contribution to the History of Visceral Syphilis", several cases in which this change occurred; *i.e.*, thickening of the fibrous septa of the alveoli. In another paper, published in the *Pathological Society's Transactions* (vol. xxii, p. 40), he records a case which, at any rate so far as the relation of the *post mortem* appearances of the lung go, may be taken almost word for word to apply to that from which the lung drawn here was removed, and to two other cases the records of which, through the death of my friend and colleague Mr. Gascoyen, have been somewhere for the present mislaid. The history of the case I bring before the College is, indeed, only an illustration of the clinical signs I have already drawn. The first symptom was, some few years back, an hæmoptysis. The *post mortem* appearances—to be brief—were those of intense fibroid change, as pictured in that drawing and visible under that microscope, with numerous bladders of emphysema. Dr. Moxon himself (*Path. Soc. Trans.*, *loc. cit.*) notes that the larger bronchial tubes in his last case were unnaturally contracted; and, though I do not wish to push my own observation beyond the fact, so far as I have been able to see at present, the dilatation of the tubes in "fibroid phthisis", or in anthracosis, is not reached in this form, microscopical preparations of which, together with a portion of the lung from which the sections were taken, are exhibited on the table. Dr. Moxon in his earlier paper had answered in the affirmative the question, "Is there a syphilitic form of phthisis different from tubercular phthisis?" (p. 372) but in his last contribution he gives a distinct denial to the proposition I am attempting to support. Dr. Sturges, in his book on the *Natural History and Relations of Pneumonia*, only lately published, gives a case (p. 185) which he considers to be "an instance of fibroid lung, probably the result of syphilis", occurring in a gentleman a little past fifty, easy when at rest, but breathless on slight exertion. "The patient" (I quote Dr. Sturges's words) "was of healthy family, of active business habits, with no tubercular or phthisical history; but some years before he had contracted syphilis. His first notice of illness consisted in an attack of hæmoptysis; and from that time he had complained, and complained only, of impaired breathing power." A woodcut of the appearances found in a case of the same kind, communicated to the author by my friend and colleague Dr. Cheadle, I place, sir, in your hands, in spite of some misgiving that my former teacher, one of the Censors of the College, may accuse me, in using it as an illustration, of having proved more than I really wish to do. Thanks to the same colleague, I saw only yesterday a man forty-three years old, aged before his time, who bears the marks of a syphilis at least, he says, twenty years ago, whose health has been, so far as he allows it, good up to the commencement of the present winter. For eleven months after contracting the disease he was in the Birmingham Hospital. It is scarcely to be wondered at that he presented no so-called secondary symptoms. Now, he has laryngeal cough and stridor; absolute dullness, without moist sounds, at his right apex: a case at present to be watched.*

Lancereaux had spoken of the few facts on which his notice of this supposed syphilitic lung-change was based. That remark still holds good; for, in the very valuable paper on Syphilis by Professor Bäumlér in Ziemssen's *Cyclopaedia*, the only cases he quotes—and I can well answer for his industry—are those of Vidal, Dittrich, and Moxon. A

* Since this was written, he has been admitted into St. Mary's Hospital.

doubtful case of the same kind was published by Cornil in the *Gazette Médicale* for 1873 (p. 185); and though, perhaps, it is hardly possible to claim Bayle's twenty-third case as belonging to this class—a case of “tubercular phthisis complicated with melanosis” in a man aged 62, who “had often contracted the venereal disease” (Barrow's trans., p. 249)—it is far less possible to pass over Morton's chapter (lib. ii, vii), “De Phthise à Lue Venereâ orta”. His observation of its clinical symptoms was made with his usual keenness: “Semper enim (quantum ego observavi) est genii Asthmatici, Phlegmate viscoso, et dyspnœa magis, quàm urgenti tussi stipari solita”. (*Op. cit.*, p. 281.)

With reference to that third form of fibroid change which, called roughly by the Germans “Staubinhalationskrankheit”, includes under one name a pathological result due to the inhaling of fine particles of coal, iron, stone-grit, tobacco, or cotton, we in London have, perhaps, but small experience. But since Wepfer (*Observationes Medico-practicae*, etc., Schafhusii, 1727), over a hundred and fifty years ago, noticed its occurrence among millstone-workers at Waldshut on the Rhine, and tried to see for himself its pathological changes, and tried in vain—“quia hactenus nullo cadavere potiri potui, quamvis id precibus et pretio tentarem” (*op. cit.*, Obs. cix, Catarrhi frequentes, p. 444)—experience as to this alteration is becoming large. Without referring further at this moment to a paper written by Dr. Peacock, who begins by quoting Wepfer, in the twenty-fifth volume (p. 214, etc.) of the *Medico-Chirurgical Review* for 1860, the literature on this subject, especially of late years in one periodical, the *Deutsches Archiv für Klin. Med.*, has been multiplied exceedingly. Zenker, Selmann, and Riegel give full bibliographical references in addition to their own experience. I have to thank my colleague Dr. Andrew for allowing me to lay before the College one of the most marked examples of this affection which it has been my fortune to see. The patient was a French millstone-maker, aged 45, who had worked at his trade since his apprenticeship. He had had a winter-cough for many years; had never suffered from syphilis; “had an attack of congestion of the lungs five years ago”; had worked hard, and had undergone great domestic trouble. And yet with the lung pictured in this drawing—and, with the exception of cavities and dilated tubes, the whole of both lungs was in that condition—he managed to live till he was killed by a pericarditis. The note made by Dr. Bristowe in reference to one of Dr. Peacock's cases (*loc. cit.*, p. 222) has its exact repetition in this patient's lung. “The diseased portions of lung were much indurated, having generally an opaque whitish hue, but being thickly studded with black pigment. Under the microscope, little or no trace of original lung-structure was visible; but the diseased masses appear to be made up of dense closely arranged fibroid tissue, studded here and there with numerous irregular groups of black pigment.” The lung itself, and microscopical sections of it, are here on the table for the examination of those gentlemen who wish to see them when the lecture is over.

Physiological experience points in these cases even more markedly than in other types of phthisis to the part the lymphatics seem to play. I have no need to refer to the calculations, whether as to chemical constitution or to weight, of the foreign particles found in the lung-tissue of these cases. That they do occur in the lung-tissue is a settled fact. By what way they reach it may be still an open question. Knauff (*Das Pigment der Respirations-organe*, *Virch. Arch.*, vol. xxxiv, p. 442), writing in 1867, had sketched to his own satisfaction the following process. In the case of the inhalation of particles of carbon, he held that, while in healthy persons these particles led only to their own expulsion from irritation of the bronchial mucous membrane, in persons continually subjected to their presence, they caused, by repeated and increased catarrh, extensive destruction of the ciliated epithelium, and, by accumulation, further necrotic processes, till a way was opened into the lymphatic vessels. Sikorsky, in 1870 (*Centralbl. für die Med. Wiss.*, 1870, No. 52; and see Slavjansky, *Virch. Arch.*, vol. xlviii, p. 326), showed from his experiments that carmine-particles, injected under the form of carminated ammonia into the lungs of cats and dogs, penetrated between the epithelial cells of the bronchial mucous membrane into the lymphatic system of the bronchi. The further explanation of these facts is furnished by Dr. Klein (*op. cit.*, vol. ii, p. 27, etc.), who has demonstrated the presence of certain interepithelial connective-tissue cells, to which he gives the name pseudo-stomatous tissue. These occupy a system of spaces which, in the normal state, do not form open communications between the surface and the lymphatic system, but in certain circumstances, under which they are distended, may be converted into free passages between the two. The same interepithelial cells are found in the interalveolar septa, and may aid absorption from the alveoli themselves. These cells occur in the positions indicated in these diagrams.

It is this form of phthisis—the third of my temporary division—

which has been, as we are reminded, “unfortunately called fibroid, in which death often occurred through the indirect result of tubercles that had terminated their career” (*Path. Soc.*, vol. xxiv, p. 309); it is this form which has carried the upholders of a specific tubercle into theories of the most startling kind, till it almost seems as if, in their allegiance to a Circe of their own creating,

“τοὺς αὐτῇ κάτεθελεν ἐπεὶ κακὰ φάρμακ' ἔδωκεν.”—*Odyssey*, x, 213.

And yet, in obedience to them, we are to believe that histological growth, or, if you will, pathological hyperplasia from already existing tissue, is not the simple thing it seems to some of us to be; but, against our own eyesight and our common sense, are to accept without questioning this *sacramentum* of “Tubercle”. We might as well, it seems to me, on the same grounds give the same name to interstitial keratitis, or to the hyperplasia of irritated cartilage. Virchow, writing on tumours (*Cell-Path.*, p. 487), had laid down a rule which, in the case of this fibroid phthisis, it would be well to follow: “Investigations ought not to be conducted with a view to determine whether they have a physiological” (he might have said here a pathological) “type, or whether they have a specific stamp impressed upon them: our final answer depends upon the question whether they arise at a spot to which they belong”. And the change arises in fibroid phthisis at a spot to which it does belong, and is as clearly due to the local irritation as is the cell-growth in irritated cartilage and cornea. Here once more the words of Addison apply: “I fail to discover what I had always been taught to consider as essentially tubercle: a distinct, separate, or rather separable body, of a particular colour and consistence, embedded in, and, although adhering to, supplanting a portion of the ordinary tissue of the lung. On the contrary.....there is not one of the varied morbid conditions coming under the denomination of tubercle which has not appeared to me to result from changes in or on the natural tissues, rather than from any separate and well-defined deposit displacing these tissues. These morbid changes have appeared to me to be perfectly identical with those of inflammation.” (*Guy's Hosp. Rep.*, ser. ii, vol. i, p. 3383.) And, sir—to close with those words which the consulting physicians of two hundred years ago used to append to the written statement of their opinion—“*Ita censeo*”.*

THE MECHANICAL TREATMENT OF FLEXIONS AND DISPLACEMENTS OF THE UTERUS.†

By J. G. SINCLAIR COGHILL, M.D., F.R.C.P. Edin.,
Late Lecturer in the Edinburgh Medical School; Physician to the Royal National Hospital, Ventnor; etc.

I PURPOSE limiting the scope of the following remarks mainly to a general consideration of the mechanical treatment of the various forms of flexion and displacement of the unimpregnated uterus. The space at my disposal does not permit more than incidental reference to the pathology of the conditions in question. Indeed, there is, it must be observed, much more unanimity among gynaecologists as to the nature and origin of such affections than as to the mode of treating them.

I have purposely chosen this subject, because it is one with which the gynaecological teaching of the Edinburgh Medical School has been very intimately associated. It is one also, many points in connection with which offer several points for elucidation, if not for divergence of opinion. Gynaecologists are far from being agreed even as to the propriety, much less as to the exact nature, of the mechanical treatment to be employed in this large, important, and interesting class of cases.

To the late distinguished occupant of the Midwifery Chair in our University may be justly ascribed the merit of at least reviving, if not of actually for the first time introducing, the use of mechanical appliances to the relief and treatment of certain disturbances of the physical condition of the uterus, and of its relations to the surrounding structures and viscera. That this *cultus* was the revival or rediscovery of a lost gynaecological art, has been placed beyond doubt by ample archaeological evidence of the most interesting character; for an excellent and exhaustive *résumé* of which I must refer you to the introductory chapter of the work of Dr. Gaillard Thomas of New York on *Diseases of Women*. Nevertheless, it must be conceded that to the late Sir James Y. Simpson is due the merit, not only of drawing the attention of the profession to, and placing within its reach, the means of recognising with certainty a large class of affections previously all but unknown, but also of suggesting a variety of mechanical appliances for their

* Wepfer, *op. cit.*, p. 348; “*Ita censeo* Raoult. Lutetiae Parisiorum, die 4. Septembris, 1678.”

† Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Edinburgh, August 1875.