HINTS ON SOME RELATIONS OF MORALS AND MEDICINE,

WITH SPECIAL REFERENCE TO PULMONARY CONSUMPTION.

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(Read before the Medical Society of London, February 15, 1851.)

THE object of this communication will be best secured by presenting, in the first place, a few simple and brief considerations regarding some of the principal Causes of Pulmonary Consumption.

The first of these causes is *hereditary influence*. There is, perhaps, no disease in which this influence is better established; and it peculiarly claims attention, in consequence of its power to perpetuate the effect of causes which might otherwise prove temporary, and restricted to the individual exposed to their agency. In more than a thousand patients examined at the Brompton Hospital, in reference to this subject, about a fourth had lost a parent from consumption. This mode of origin was traced about twice as frequently in the women as in the men; and it is worthy of observation, that the influence tends peculiarly to extend in the direction of the sex in which it first appeared. Of thirteen women at present under my care, whom I have questioned carefully on this point of inquiry, three have lost both father and mother, two their mother only, one the father alone. And this statement represents, on a small scale, the conclusions deduced from more extended statistical inquiry.

Secondly, no one will doubt that the influence of *bad air* must tend materially to the production of phthisis; and, assuming this to be the case, I may specify tailors, journeymen bakers, and printers, as likely to suffer in a high degree. Tailors constitute a large proportion of the patients at the Brompton Hospital—not less than 7·2 per cent. They are, unhappily, liable to many other diseases, and constitute about 5·8 per cent. of the patients of a general hospital. A class, representing but a small proportion of the male population, must be exposed to very unfavourable circumstances, to be rendered in so high a degree prone to disease. Journeymen bakers are subject to complicated causes of disease;—work prolonged for twenty hours; gas-light instead of sunshine; hot gusts of flour-dust instead of the fresh air:—and of the journeymen bakers in this metropolis, probably a fourth have symptoms of phthisis.

The next class to which I would allude is printers. Although it is probable that the number of printers in this city is not above one third as great as that of tailors, their per-centage is half as many in our list of applicants at the Hospital for Consumption; and their liability to consumption appears to be four times as great as to other diseases. But there is an important fact connected with the liability of printers, for the knowledge of which we are mainly indebted to the meritorious

investigations of Dr. Guy, a physician entitled to the best thanks of the public for his laborious inquiries. The fact is, that the liability of pressmen and compositors materially differs. During a long period of observation, it was ascertained that, whilst the proportion of pressmen applying at King's College Hospital, who were consumptive, was one-fifth, that of the compositors amounted to one-fourth. The wages of the compositor being higher, and his habits fully as temperate as those of the pressman, we have to seek the cause of his greater proneness; and the obvious explanation would seem to be the want of the exercise which, in the pressmen, may be supposed in some degree to counteract the effect of confined air. This opinion derives confirmation from the observations made some years since by Lombard and Benois-ton, on the effect of exertion of the arms in counteracting a tendency to phthisis.

The third cause, at which I shall only glance, is *dissipation*. The depressing influence of this cause will be readily acknowledged. To syphilis and mercury I have repeatedly traced the first origin of consumptive disease. In the majority of the male patients at present under my care, this influence seems to have had a considerable share in the production of phthisis. This leads me to notice a remarkable fact, as regards the liability of soldiers to consumption. Even the Dragoon Guards, who are more favourably circumstanced than many divisions of our army, exhibit annually a mortality of .63 per cent., whilst that of the male population of England and Wales is only .37 per cent. At first sight, it is probable that the cause above referred to would be suggested in explanation; and I am ready to acknowledge that our gallant soldiers, although above fear, are not so constantly as we would desire above reproach. But this explanation proves inadequate, when we reflect on the comparative immunity of sailors from the disease; and I cannot but attach importance to the explanation suggested by Dr. Duncan, viz.: "The listlessness of their life, and the dull monotony of drills and parades." (*Dublin Medical Journal*, vol. ix, p. 32.)

I am thus conducted to a branch of the inquiry, to which I am specially anxious to invite attention; namely, *the effect of mental impressions in predisposing to phthisis*. We are apt to forget the remarkable influence of emotion in modifying respiration; but, if any one will observe his breathing when any depressing subject is dwelling on his mind, he will soon be convinced of the tendency of such depression to retard the respiratory act. The terms breathless anxiety, breathless suspense, are not mere metaphors. The idea implied in these popular expressions is forcibly introduced by the patriarch Job, chap. ix, verse 18: "He will not suffer me to take my breath, but filleth me with bitterness":—and it may not be inappropriate to suggest how aptly this passage illustrates the fact that, while the language of inspiration is preeminently adapted for conveying truth, not to philosophers alone, but universally, even to the untutored multitude, it nevertheless, on occasions consistent with this principle, combines in a remarkable degree scientific accuracy with general comprehensibleness.

Inasmuch as mental depression may interfere with digestion, it may

lead to various maladies; but by retarding respiration, and thus inducing pulmonary congestion, I believe it specially tends to promote the deposition of tubercle.

It is not improbable that such an explanation may be applicable to a common condition of the recluse student, and the man of refinement, who shrinks from the busy scenes of active life, and, worn with cerebral labour, is "sicklied o'er with the pale cast of thought".

The medical statistics of our prisons afford striking illustrations of moral causes of disease. Dr. Baly has shown, from extensive observations of prisons in various parts of the country, and in America, under great varieties of climate, diet, and general regulation, the prevalence of one common circumstance,—namely, greater liability to consumption than exists among the population generally; amounting, in the case of the Millbank Prison (where, however, it must be acknowledged that a combination of unfavourable circumstances are in operation), to about four times the average; the time required for the full development of the effects of the unfavourable influence being about three years.

An interesting question arises, whether the causes referred to in this communication are equally influential with both sexes. The statistics which I have at command indicate a considerable difference. In London, the mortality of women from phthisis is much less than that of men, and the advantage is specially observed in married life; the proportion of the female cases to the male, under such circumstances, over the age of twenty-five, being as three to five. This remarkable fact can scarcely be due to other than moral causes; and such are easily assigned. Man, in struggling for the support of his family, is beset with anxious care; woman, with more faith and patience, provided she receives her just share of consideration and tenderness, fulfils cheerfully the duties of the day, and does not so anxiously regard the morrow.

The records of the Registrar-General supply, as it seems to me, an additional confirmation of this view, in the remarkable fact, that the mortality in some provincial cities, as well as in the metropolis, is least for women; but that in the counties the proportion is, in a higher degree, to the disadvantage of the female. The only important exception to the rule, as respects provincial cities, is Leeds, in which the excess of female mortality is equal to that in the kingdom generally. I know not how these facts are to be explained, except by some peculiarities of moral condition. As a test of this condition, it has occurred to me to examine the Registrar-General's return of the number of illegitimate children born respectively in certain districts which I had previously noted, as illustrating the fact just specified.

The order of increase, in the proportion of female mortality, is exhibited in the following table of the per-centage of deaths observed, in each instance, on 200,000 of the population, as deduced from the Registrar-General's return for the year 1837.

I have given, in an additional column, the per-centage of illegitimate children in relation to the whole number of children born; and although the returns, in this respect, are unavoidably for a different year, the relative proportion of different places for several successive years sufficiently corresponds to obviate any incidental fallacy.

	Deaths from Phthisis.		Proportion of illegitimate children to children born.
	Men.	Women.	
London	455	377	3·2 per cent.
Liverpool and West Derby	595	571	3·6 —
Manchester and Salford	519	548	5·8 —
Leeds	440	477	6·0 —
England and Wales	378	408	7·0 —
Paris, according to Benoiston ..	288	480	28·0 —

It is not intended to imply merely that the mothers of illegitimate children are peculiarly prone to phthisis, but that, in districts where the proportion is high, such a system of morals may be assumed to prevail as must extensively expose the female population, in a marked degree, to causes of moral disquietude. The return from Paris, even admitting some deduction on the ground of large Foundling hospitals, is remarkably high; and the female mortality of that metropolis, from phthisis, is not less striking. It will scarcely be disputed that, in any district notorious for the number of children born out of wedlock, there will the women be least happy in condition, most exposed to hope deferred, unrequited affection, bitter ingratitude, and all the causes which tend to wither the heart of those whose life may be said to ebb and flow with their emotions. If the power of mental causes to induce such disease were disputed, many instances might be adduced in support of my opinion. Let one suffice. In some parts of Wales a superstition still prevails that, if the image of any individual be put into one of the charmed wells, as that image melts away, the person represented will pine and die. A beautiful young woman had refused to marry a dwarfish and almost idiotic neighbour. The mother of the young man used every solicitation on his behalf in vain, and then, in revenge, declared she would put the image of the obstinate girl into the well. The poor girl credited the superstitious tale, and soon fell ill. An eminent physician, to whom I am indebted for the narrative, watched her with interest, prescribed for her symptoms, and strove to dispossess her mind of the idea which so painfully beset her, but in vain. There was no hereditary tendency, nor any other explanation of the origin of the disease; but phthisis distinctly manifested itself, and in six months she died.

Impressed as I am with the conviction, that depressing moral influences often induce consumption, I am not less persuaded that cheerful impressions tend to retard the disease. I have long observed that the patients improve more rapidly, and that the mortality is less, in the large than in the small wards of the Brompton Hospital, although the space allowed is proportional to the number of patients admitted into them; a result very different from that which we observe in diseases associated with morbid poisons, and even in some epidemics, especially influenza, in which the existence of such virus is disputed. The influence of cheerful society I have particularly observed amongst the female patients. And here I would remark, that women, from some peculiarity of constitution, bear confinement to the house in phthisis, and other diseases, better than men; whilst with men, horse exercise, and other muscular exertions out of doors, are more obviously useful,

and the evil of confinement is often greater than the risk of moderate exposure, even at a somewhat advanced period in the progress of disease.

Of the causes thus cursorily illustrated, as tending to induce and aggravate phthisical disease, some are under our own control.

First. The air of our apartments and workshops is not by necessity a contaminated air; open fire-places, with Arnott's ventilators, or a zinc-pipe, or some other simple precaution, will, to a great degree, correct the evil, and some hundred lives would thereby be saved annually in this metropolis alone. If the proportion of deaths from phthisis, among the artizans in London, were reduced to that which prevails among the gentry, fifteen hundred lives, at least, would be annually saved in this metropolis. No physical advantages can compensate for the evils incident to contamination or exclusion of light, air, and water. Vanity and ignorance may affect to regard disease as an exotic, but it is a narrow view to expect to exclude, by quarantine, diseases which close workshops can engender. A suspected ship is not so bad as a convicted house, in which not only sudden epidemics, but ailments still more destructive, although chronic, so readily originate.

Secondly. In addition to the use of free muscular exercise in the open air, great advantage would be derived from attention to the power with which the will is endowed over the respiratory muscles. And I cannot but believe, that some of the evils of close application to study would be obviated by occasionally pausing to practise breathing. On this subject I should be tempted to enlarge, were it not that the principle rests on physiological truths, which were well elucidated in a paper read to the Society by Mr. W. F. Barlow in the spring of 1849.¹

Thirdly. It is the duty of the medical practitioner to take every opportunity of impressing principles imperfectly appreciated, but of great importance in relation to the production of consumption, and to place his influence in opposition to that inordinate estimate of lucre, which leads so many to forget that health is property of the highest value. He should enforce the truth, that ambition, disproportioned to power, is a constant source of physical exhaustion and moral disquietude; that it is difficult to calculate the amount of advantage which individuals would derive, if they would study to attain a correct estimate of their powers, and not engage in labours to which they are not adapted; and that health, as well as happiness, would be essentially promoted, if education were habitually conducted so as to train the mind for tranquil superiority to passing cares, and to fit for the exhilarating occupations of a useful life. Physical suffering is, in a great degree, attributable to ignorance or neglect of laws which are displayed for our instruction, and established for our advantage. And, as a general rule, it may safely be asserted, that "to be morally right is to be physically happy".

3, Bedford Square, February 1851.

¹ BARLOW (Mr. W. F.) On Volition as an Excitor and Modifier of the Respiratory Movements. *Medical Gazette*, July 20, 1849, vol. xlv, p. 97.