

# SCIENCE

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## THE MEDICAL PRESS ON KOCH'S CURE.

### The Epidemic of Kochism.

THE fact that the new and untried method of Koch produced an immediate and world-wide sensation is perhaps not to be wondered at, but it furnishes nevertheless a very interesting study. What might, for present purposes, be called the epidemic of Kochism, first appeared in Berlin at the time of the International Congress, but remained local and dormant for about three months, when it suddenly spread with increasing force and great rapidity, taking roughly the same course as the epidemic of influenza a year ago. It appeared in America, however, before it did in France, perhaps owing to the more positive and far-reaching ubiquity of our press. It has only lately begun to be felt in the far East and South. It is yet too early to say how long it will last, but it shows signs of waning in Germany. A well-marked feature of the epidemic is a sudden revival when the first consignments of "Kochine" reach a given locality. Members of the medical profession are generally attacked a little later than the laity, and often escape altogether, except when brought into the vicinity of newly arrived Kochine. Kochism produces certain typical symptoms in members of the medical profession who are unfortunate enough to be afflicted with the malady, but our study is limited to the laity, and in fact to one class of sufferers. The effects of the epidemic on the laity differ, and show marked characteristics in different classes, especially among newspaper reporters, members of phthisical families, and irregular practitioners, among whom, by careful search, may be found symptoms which are respectively ludicrous, pathetic, and disreputable.—*Boston Medical and Surgical Journal*, Jan. 15, 1891.

### The Koch Remedy for Tuberculosis.

It is now about two months since Koch made the announcement of his "remedy" for tuberculosis, and it may be said to have had a fair opportunity to show what it would accomplish. Of course, there has not been time to show cures without possibility of recurrence,—years might not suffice for this,—but there has been plenty of time to show if it could produce improvement of steadily progressive character, and furnish ground for hope that eventually some form of tuberculosis would be, in a fair sense of the term, cured through its influence upon the human economy. Unfortunately, after all, it is impossible to say that the lymph can be relied upon for any of the purposes indicated by Koch in his first announcement. It is not a trustworthy means of diagnosis, nor a reliable remedy for any form of tuberculosis; while experience has demonstrated that it is dangerous when used either for diagnosis or for treatment. Professor Virchow, who has been making investigations on the lymph treatment,

last week asserted, after twenty-one *post-mortem* examinations of patients who had died after injection, that the Koch method is not what had been hoped or claimed for it, and that there can be no permanent benefit from it to the patient. The tubercle bacilli, he says, are not killed by the lymph, but are only driven out to take lodgement elsewhere. Thus, according to his theory, tuberculous affections, while they may disappear from one part of the body, break out in other places in as discouraging a form as ever. To this we may add that the phenomena of certain cases, in which it has been asserted that unsuspected tuberculosis of the lungs had been revealed by treatment with the lymph, warrant the belief that the lymph may set up a tuberculous process in persons entirely free from disease.—*Medical and Surgical Reporter*, Jan. 17, 1891.

### Virchow and Koch.

There is probably no one living whose opinions are listened to with the same respect as are those of Virchow, who has been so correctly called the "father of modern pathology." The statements of this eminent man are also particularly interesting when they concern the new method of treating tuberculosis, and become still more important when they seem in any way opposed to the almost ecstatic reports of the physicians who have used the mystic liquid in Germany and elsewhere. The statements of Virchow, which are published in the *Extra* attached to this number of the *Medical News*, show that a possibility exists of a sad curtailment of our hopes for the relief of the "white plague," and emphasize the fact, that, do what we will, the mortality must go on unimpeded to a very great extent.—*Medical News*, Jan. 17, 1891.

### The Lymph and its Re-actions.

The publication of Professor Koch regarding the composition of the lymph, considering the great expectations which have been aroused concerning it, is rather disappointing than otherwise. Aside from the mention of the ingredients contained in the fluid, we are in little, if any, better condition as to the possibility of its production in our own laboratories than we were before. Still the information, as far as it is given, will add much interest to the study of the results of lymph treatment in their relations to the supposed causes of their production: in other words, we are so much the better enabled to think for ourselves, and so much the more encouraged to work in accumulating data by which the new theory must stand or fall. We are making enough progress in the latter direction to take courage accordingly, and hope for the best in the direction of eventually settling many of the mooted points of a startling revolutionary doctrine.

Much of the interest of our investigations has centred upon the value of the re-actions, general and local, as diagnostic of tuberculosis in various parts of the body. Although the

re-actionary phenomena have been quite uniform, they have proved to be far from absolutely so.

Then as to the supposed mode of action of the lymph in destroying tuberculous tissue, or scattering the bacilli, there is opportunity for much difference in opinion. The doctrine of specific action is losing rather than gaining ground in the light of present clinical experience here and abroad. Fortunately, the autopsies have been few, and pathological opportunities have been limited. So far, there have been few lesions peculiar and striking enough to show any direct relations of cause and effect in the use of the remedy. Many observers have noted no changes whatever in tuberculous joints opened by surgical operation after the lymph has done its re-actionary work, while others have described degenerative changes which may or may not have existed before the inoculation treatment was commenced. The examinations of lung lesions have shown equally various conditions from that of limited areas of injection around decomposing tubercular masses, as usually seen in cases under ordinary treatment, to that of extensive infiltration of neighboring tissue. The latter phenomena have been described also in connection with tubercular diseases of the larynx, where suffocation has been thereby threatened, and particularly in cases of lupus, in which the turgidity of surrounding parts has been almost the rule, and has been associated with incrustation of the surface.

While such effects confirm the predictions of Professor Koch regarding local re-actions, and encourage further study, we have as yet made no notable progress in ultimately curing tuberculosis, or in proving that the lymph acts differently from any other substance containing an active albuminoid substance capable of producing systemic poisoning with local manifestations. Theorizing on this basis, it would be legitimate to assume that any organic poison similar to that which the lymph contains would attack most strongly a weakened body, such as we find in tuberculous patients. The parts invaded by a degenerative disease, and necessarily most lacking in vitality, would be the first to be affected. As a consequence, strong re-actions might easily occur in the shape of increased local congestions and infiltrations, with the usual attendant phenomena of an augmented general febrile disturbance. From such a standpoint it may not be difficult to understand how the tuberculous tissue as such might be killed independently of any elective action of the lymph.

At best, we must admit that the simple destruction of the diseased tissue, even if such can always be assured, is but a part of a very complex process of cure for tuberculous disease. Something more is required than mere injections and resulting re-actions.

While we may congratulate ourselves that we have even progressed thus far, we have scarcely taken more than a first step. Much more difficult tasks are the safe elimination of the rapid local decomposition occasioned by the lymph, and the subsequent reparation of the invaded parts. Already we are told that in cases of tuberculous joints and glands relief can be obtained ultimately by surgical measures only.

What becomes of the bacilli which are not directly affected by the lymph treatment is a question of considerable importance. The statement of Virchow, that when they are routed they are scattered in adjoining sound tissue, is doubtless backed by a careful and intelligent study of *post-mortem* appearances. Until, however, more definite facts than those already offered are given, it will be well to suspend judgment.—*Medical Record*, Jan. 17, 1891.

#### TREES IN LONDON.

FROM a sanitary point of view, it is generally held that trees are useful, though some maintain that near houses they are often harmful from their shutting out sunlight. Whatever may be the relative value of different views put forward, observations made within the last few years seem to establish the fact that within a five-mile circle from Charing Cross the amount of foliage is decreasing. Many of the main roads leading out of London have been planted with trees, and, largely through the influence of the Metropolitan Public Gardens Association, many open spaces have been beautified by foliage. But while the number of trees placed on public ground is increasing, both the number, and, through very close lopping, the size, of trees on private ground, are decreasing; and the gains are far outbalanced by the losses.

The losses may be grouped under two heads:—

1. The cutting-down of trees completely. This is mostly due to clearances for building; and within the five-mile circle the destruction of trees in pasture-lands is small, compared with the breaking-up of gardens. In many parts houses standing in from one to two acres of ground are demolished for rows, or closely packed semi-detached villas, and the gardens are destroyed to make way for them. Recent changes in the Herne Hill district are a good typical example of this. Where three years ago there were around country houses grounds rich with timber and fruit trees, are now roads closely built on either side, with a few square yards of front that might be effectively treated with tiles and small pattern "carpet bedding," but are not large enough for trees. Instances of this kind might be quoted from many districts around London. Again, the older roads of villas, that had some twenty-five to forty feet of garden between the front door and the gate, with more at the back, are in all parts little by little being bought up to make streets which have their frontage flush with the pavement, or a depth of some three to four feet, at the most, railed off. The miles of plain fronted brick terraces built from seventy to one hundred years ago are (probably as the leases run out) being replaced by rows with their front doors leading directly from the pavement. Architecturally there may be an improvement; but the gardens, which average about thirty feet in length, are lost. Front gardens are gradually disappearing from London, and with them go the trees that used to make the public ways so changeably pleasant from bright spring to rich tinted autumn.

2. In districts where gardens remain, there is a large increase in the cutting-down and close lopping of trees. It is difficult to assign the cause for this; but whatever the explanation, the fact remains that the trees, instead of being annually pruned, are suddenly lopped, till, in hundreds of cases, they are reduced to a trunk and a foot or two, or a few inches, of branch-stumps. Few trees grow symmetrically except when isolated, and even then prevailing winds have their influence; and in towns rows of buildings have an effect similar to copses and hill contours in protection. And in many cases around London there may be seen trees so carefully tended from year to year that they but little overhang flower-beds, grow well above the pavement, and yet do not look unnaturally distorted.

Many fine elms and spreading poplars and acacias may be seen, their trunks covered with ivy or other creepers, and the lower branches carefully removed, so that sunlight falls on the small garden, and the lower rooms have light. It would seem that want of management while trees are young is one of the causes of ignorant lopping being resorted to; and another, that forest-trees have been planted where fine-leaved and small-habit trees would have been more appropriate.

It can be easily observed that the increasing number of public trees are periodically attended to, while private trees are disappearing piecemeal, or being entirely swept away. London has, in the last few years, gained in planted open places; but the acreage does not equal the small lawns, grass-plots, shrubs, and trees lost.

A GENERAL exhibition of the Kingdom of Bohemia is to be held this year at Prague, this being the centennial jubilee of the first trades-exhibition on the continent at Prague, in 1791. The exhibition will last from May until the 15th of October, 1891.