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**THE MEDICINAL TREATMENT OF  
TUBERCULOSIS.**

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At the present day the tendency is rather to make too little than too much of medicinal treatment in tuberculosis. Climate, hygiene and diet are remedial agents which are far more powerful than any drugs, but an important lesson to be learnt from out-patient practice at a large hospital for consumption is that medicine can do a good deal to influence the course of the disease and to improve the patient's condition under very unsatisfactory circumstances as to food, climate and general environment. Drugs may become unnecessary when other powerful influences such as those mentioned can be brought to bear on the disease, but the usefulness of medicines is undoubted with the ordinary conditions under which the disease is met with in this country.

The discovery of the bacillus tuberculosis by Koch was immediately followed by attempts to apply this discovery to therapeutic purposes. The idea which first suggested itself was to administer various substances possessed of antiseptic or bactericidal properties, in the hope that they might kill the bacillus in the body. But although a large number of substances were proved to be able to kill or attenuate tubercle bacilli as cultivated in artificial media, it was found to be a very different matter when they were employed to attack the bacilli in the body of an animal. Little help in treatment has so far been afforded by the attempts to treat the disease in this way.

Dr. Sims Woodhead has elsewhere described the efforts which Koch and others have been making to obtain something of the nature of an antitoxin. All we know of the disease is not very encouraging to the hope that an efficient antitoxin will be obtained. In the case of some diseases, such as the specific fevers, the individual acquires immunity through successfully passing through an attack of the disease. So far is this from

holding in the case of tuberculosis that the reverse might be asserted with truth—namely, that susceptibility is increased once the bacillus acquires a successful footing in the body.

Neither in the local and chronic nor in the general and acute forms of the disease does any sign of immunization ordinarily appear. Koch believes, however, that in certain cases of acute miliary tuberculosis an immunization against the bacilli does occur, although too late to be of benefit to the body attacked. He has pointed out that in the course of acute miliary tuberculosis a certain stage sometimes occurs in which the number of stainable bacilli diminishes, a fact which is the more remarkable because ordinarily dead bacilli are absorbed very slowly indeed. This disappearance of a large number of the bacilli is looked on by Koch as a sign of immunization resulting from a rapid inundating of the body with micro-organisms which have been absorbed or digested. He infers that the reason immunity does not ordinarily occur is because the bacilli attain their development only in small numbers in the body, being there environed by dead tissues, and only becoming absorbed long after when they are dead and are profoundly altered, or, as more commonly occurs, being eliminated unchanged from the body without any absorption at all.

Working out this idea Koch was led to the discovery of the various forms of tuberculin elsewhere described. The failure of the old tuberculin as a curative agent is now a matter of ancient history, nor can it be said that the reports as to a curative action of Tuberculin, R. are at present any more encouraging than those of the older product, while both local and general reactions have been frequently met with after treatment with the newer tuberculin.

It is not necessary to add anything to what Dr. Sims Woodhead has said as to the use of anti-tuberculous serum, which is still in the experimental stage. The results so far obtained are not sufficiently conclusive to justify an extended use of any of the sera so far prepared. For the present we must be contented with simpler remedies, and, accordingly, we propose to give a short review of the principal medicinal agents which are now in use.