THE NEXT STAGE IN THE TUBERCULOSIS MOVEMENT: A CRITICISM AND A SUGGESTION.

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I WAS much interested in the symposium on the Next Step in the Tuberculosis Movement which appeared in a recent issue of this journal, containing various views by well-known authorities. I must admit being disappointed at the lack of originality. As far as I can see, there were no suggestions made of methods that have not already been applied sufficiently thoroughly in certain places, such, for example, as Edinburgh and Belfast, and have failed to reduce the death-rate from tuberculous disease.

Of course, the general mechanism of dealing with the patient from his home through suitable institutions and back again must be perfected and extended throughout the whole country; but perfect machinery is useless without motive force, and the present machinery for dealing with tuberculosis is of little use, because the methods of prevention and treatment which we already have available are only imperfectly applied.

The tuberculosis specialist calls on the general practitioner for early diagnosis. The general practitioner retorts: "Give me a method of early diagnosis, and I will apply it." The expert is silent, because he cannot make a positive diagnosis until tubercle bacilli appear in the sputum. And yet, I know, a method of diagnosis is ready to our hands—viz., the subcutaneous injection of a reliable tubercle antigen. The occurrence of a general reaction after such agent means, with but few exceptions, active tuberculous disease. If there is a reaction in a suspected focus the diagnosis is absolute. The antigen I use in my practice is benzoyl chloride solution, which is perfectly reliable and harmless in the doses prescribed—viz., 0.000001 mg., 0.000001 mg., 0.00001 mg., 0.0001 mg. It is uncommon not to get a reaction after the second dose if the disease is active. I hold that it is peculiarly important to use this method on contacts—*e.g.*, members of a family in which a case of tuberculous disease has occurred—for these members of tuberculous families have a low resistance to the disease, and have had special facilities for acquiring a virulent infection. Those who do not react will, I venture to believe, have had their resistance to the disease increased. The method has every advantage. I am convinced that the case incidence and

mortality of the tuberculous disease will not be decreased until this method is universally applied. Further, the cases so diagnosed are in the early stages of the disease and in those without sputum, indicating an unmixed infection; a proper course of tuberculin will by itself bring about cure without difficulty. Even without such a test, cases of hæmorrhage, however slight, or pleurisy must be assumed to have the disease, and should at once receive a course of tuberculin.

Turning now to the treatment of cases of pulmonary tuberculosis with sputum and tubercle bacilli in the sputum. I have good reason for asserting that, for all practical purposes, such cases are all suffering from a mixed infection with tubercle bacilli and catarrh-producing microbes. If the latter are not efficiently dealt with in the method of treatment employed, treatment is bound to fail. This, I hold, is the cause of the failure of tuberculin in the treatment of the disease. Complete autogenous antigens are essential for effective treatment. Further, intravital germicides, such as iodoform in ether or di-iodosalicylic acid, given intravenously, are of immense help. I expect to be able to advocate others in the near future. Let me quote the immediate results obtained in the National Hospital for Consumption in Ireland. I take the year 1914, when the iodoform-catarrh antigen-tuberculin method came largely into use, and compare it with the results obtained in 1912, when the ordinary sanatorium method prevailed:

Year. ¹	Percentage of Apparently Cured Cases.		
	First Stage.	Second Stage.	Third Stage.
1912	10.9 per cent.	6.6 per cent.	0 per cent.
1914	35.7 ,,	21.6 ,,	5.6 ,,

All these cases had tubercle bacilli in their sputa before treatment, and were not pronounced "apparently cured" until they were free after three or more examinations.

Of course, everyone will agree with Sir Clifford Allbutt that prevention is everything; but I cannot agree that isolation alone will cut off the source of infection. The only effective way known to science of preventing such a universal infection is the increasing of the individual's resistance by prophylactic inoculation.

¹ The figures for 1918 are 50 per cent., 16.6 per cent., and 1.6 per cent. respectively.