

the first reported), that it is inadvisable to jump to the conclusion, as some have done, that salvarsan is a cure for yaws. We know practically nothing of the natural history of the yaws spirochæta, and in my opinion we are not justified in regarding any case of yaws as cured until a long period of time (say ten years) has elapsed without recurrence. Even then the question of reinfection will have to be considered and may obscure the result. That many patients who would otherwise have died from yaws or its sequelæ have been saved by these drugs is unquestionable, and in Fiji, at all events, the correct use of the drug may result in giving a new lease of life to a dying race.

Fiji.

PNEUMOSAN IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

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EARLY last year I had amongst the patients under my care a considerable number who were suffering from pulmonary tuberculosis in an acute stage. They were cases eminently unsuitable for the exhibition of tuberculin, so I determined cautiously to try pneumosan. The results proved so satisfactory with this group of patients that I extended the investigation in the following ways. First, I transferred from tuberculin to pneumosan all those patients who under tuberculin were not making such good progress as I desired. Secondly, taking a batch of new patients, I placed the odd numbers upon pneumosan, the even upon tuberculin; unless I considered that tuberculin might in any case prove harmful. In this way I have had during 12 months 121 patients under treatment with pneumosan, and I think the results will be of interest to practitioners who are as yet unfamiliar with the preparation.

Before tabulating my results I will describe the method of administration. The injection is given intramuscularly in the deltoid, using each arm alternately and avoiding as far as possible the exact site of the previous one. The patient's hand is placed upon his hip, the arm being held relaxed in the same plane as the body. The site for injection is swabbed with spirit solution (1:1000) and the needle plunged swiftly through the skin at right angles to it. Injection must be made slowly or it is likely to cause pain. It is recommended that the injections be given daily, but dealing with out-patients of the hospital class this is impracticable, and in most cases they are given but twice weekly; only in a small number three or more times a week. For an adult the initial dose is 0.25 c.c. (= π iv.); this was increased gradually to a maximum of 1 c.c. (= π xvii). In no case has any local reaction been observed, though a few patients have complained of pain in the arm during the remainder of the day after injection. General reactions as evidenced by the temperature chart are fairly common, but are not associated with such marked subjective symptoms as is usual with tuberculin reactions. As the course of treatment proceeded, the temperature where previously high and irregular usually steadied down; only in the very advanced cases did it maintain a daily variation through as much as 2° F.

My original object in using pneumosan was to

reduce the patient's temperature and fit him for subsequent tuberculin treatment, but as I noticed that coincident with the defervescence there was a marked improvement in the general condition of most patients, I decided to withhold tuberculin and watch the effect of the continued administration of pneumosan upon the physical signs. The first sign of general improvement was, as a rule, diminution of cough; this was followed by increase of weight, appetite, and energy, resulting in an all-round feeling of renewed well-being. Many patients whose physical signs have altered but little (this refers especially to the advanced) nevertheless demonstrate in varying degrees these improvements in their general health. I spoke of having used pneumosan in 121 cases, but only 103 are tabulated; the reason for this discrepancy of 18 is that 7 patients after beginning treatment desired to discontinue their attendances at the dispensary, while the last 11 have not as yet been under treatment for a sufficient time to warrant their inclusion in the table.

Table showing how 103 Patients fared under Pneumosan Treatment, and into which Stage (Turban) they had Advanced.

	First stage.	Second stage.	Third stage.	Very advanced.	Total.
Deteriorated under treatment	1	0	2	6	9
No appreciable change	5	2	5	3	15
Improved	10	10	8	5	33
Much improved	13	8	9	5	35
Disease arrested	7	3	1	0	11
Total... ..	36	23	25	19	103

I have lent towards severity in estimating the changes occurring after the use of pneumosan. It must be borne in mind that many of the cases were given pneumosan for the very reasons that they were not progressing favourably under other forms of treatment. Great difficulty was met with in subdividing patients in the improved groups. I confess that I am unable to give a precise definition of all the points which influenced me when subdividing this group, but, broadly speaking, those classed as "improved" are so chiefly with reference to their symptoms, while the "much improved" are so with reference to their physical signs as well as to their symptoms. As this paper approaches the subject solely from its clinical side I consider this rather loose subdivision of the improved cases to be helpful.

It is a striking coincidence that in all patients who are gaining the upper hand in their struggle with the tubercle bacillus symptoms improve before physical signs, and that it is not uncommon to find a patient who, anatomically speaking, is in an advanced stage of tuberculosis is yet symptomatically well for all ordinary purposes. Such patients may well be termed "carriers." On the other hand, patients in an earlier stage with no, or but slight, physical signs are not infrequently suffering from pronounced toxæmia. These facts should make us extremely cautious in speaking of a cure or even an arrest of the disease. Unfortunately, we have as yet no reaction whereby we are enabled to test whether the disease is entirely overcome or is remaining latent. Besredka's serum diagnosis may prove to be such, but requires further confirmation. The tuberculin reaction is an anaphylactic phenomenon, and merely informs us that our

patient has at some time in his life been rendered sensitive to tuberculin. This information, though occasionally very useful for diagnostic purposes, does not help us in deciding when a patient is cured, and there is no evidence to show that the mere raising of tuberculin tolerance to a high level is coincident with the eradication of the disease. As, therefore, we have no certain method of determining when the disease is eradicated, I have in drawing up the preceding table only classed a patient as "disease arrested" when physical examination shows no signs of activity and when at the same time all symptoms have ceased. This class, together with certain of the "much improved" group, are now on furlough and are due to report for re-examination on fixed dates. All our patients are in this way kept under periodical observation, and during the intervals are visited from time to time by the nursing staff. At a later date, therefore, I shall be in a position to state to what extent these patients have succeeded in maintaining their health. However this may be, I anticipate that in the course of a few months the balance of the table will be greatly altered by the passing over of many from the "much improved" to the "disease arrested" group. It will be noticed that the so-called first stage cases show the highest proportion of good results. This is only to be expected under any beneficial form of treatment, but I should like to take this opportunity to point out that what we are in the habit of calling the first stage (using Turban's anatomical classification) is in reality a stage of well-advanced disease. Strictly speaking, the first stage is the stage of deposition of the bacillus in the tissues; between this and the development of physical signs a considerable interval elapses, during which the tuberculin reaction manifests itself. It is the appearance of this reaction which heralds the second stage proper. During all this time the bacilli have been multiplying in the tissues and have been surrounded by barriers of connective tissue creating what Ehrlich terms a "dead corner," which makes it increasingly difficult for our remedies to affect them either directly or indirectly. Yet it is not until all this has happened that we begin to talk of a first stage.

What really is most needed in the treatment of tuberculosis is early diagnosis, such as is now possible in the case of syphilis. When we have a means of arriving at the diagnosis sufficiently early my experience leads me to hope that in a majority of cases a course of treatment with pneumosan will prove entirely efficacious. I have found it a most useful drug in the so-called first and second stages of the disease, and I know of no better palliative in advanced cases. I do not regard its action as specific, but rather as tonic and alterative. In a large number of cases its use is followed by a defervescence of temperature and an improvement of the patient's general condition, resulting in arrest of the disease. On these grounds I consider that it merits a more extended trial, particularly as its use appears to be free from danger even in acute and advanced cases.

In the course of my remarks I may appear to have disparaged tuberculin as a therapeutic agent; before concluding, then, let me make it clear that I am a believer in the value of tuberculin under proper conditions

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Reviews and Notices of Books.

The Great Problems.

By BERNARDINO VARISCO, Professor of Theoretic Philosophy in the University of Rome. Translated by R. C. LODGE, M.A. London: George Allen and Co., Limited. 1914. Pp. 370. Price 10s. 6d. net.

F. Schlegel was the first to observe that every man is born either a Platonist or an Aristotelian; and it is unquestionably true that a broad dichotomy exists in men's outlook on philosophic problems. The method of one is that of mysticism, the other that of science. The work of one looms vaguely through a cloud of emotion and hidden longings or passions; that of the other presents sharp and decisive outlines, and exhibits without softening or disguise the naked crudity of facts. Doubtless each point of view is rooted deep in the inherited constitution of the mind of man, and the weapons to which the first is accustomed are ill-fitted to combat the tenets of the second.

The philosophy of Bernardino Varisco represents the extreme mystical position, in sharp contrast to the philosophy of science. It is likely, therefore, that many men of science will see in it, as in all such systems, nothing more than a refined and educated expression of the class of sentiments which in a lower sphere gives rise to "christian science" or "higher thought." Just as a quack medicine plausibly advertised may take in a large number of apparently intelligent people, so a quack philosophy when backed by the learning and conviction of a university professor may carry an appearance of respectability which will be questioned only by those whose contact with human nature has taught them the astonishing fallibility and measureless credulity of mankind. A body, according to Professor Varisco, is a group of sense-perceivables bound together by a law. The Kantian reader would, perhaps, rather be this than simply an original transcendental synthetic unity of apperception; but neither solution is very attractive. Morality, according to Professor Varisco, is by no means "bien fondée," unless it is in agreement with "metaphysical truth." Seeing that scarcely two philosophers can be found to agree as to what is metaphysical truth, morality would seem to be in a bad way. Professor Varisco accepts the view of the original degradation of man: Every man begins by being "a true brute, however sweet a baby"; and this is a fact "to which nothing can be opposed except idle chatter." The professor travels somewhat far afield in search of an illustration of bad manners—viz., taking in one's arms a young lady in her nightdress. But, we are informed, the relativity of such rules is shown by the fact that this breach of good manners may rightly be perpetrated by a night-watchman in case of fire.

The translation is good, though a few criticisms are inevitably called for. We do not know what is meant by the "mutual weight" of bodies. It is customary in England to write the name of Descartes in one word. One note of warning, however: he who "tries to destroy my value," says Professor Varisco, "commits an infamous action." "He is a brute with certain human characteristics. If I have the power I crush him like a loathsome poisonous worm." Let us, then, hastily disarm Professor Varisco's wrath by warmly recommending his work to all theosophists, mystics,