

Gold Treatment of Leprosy.

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DURING the last decade great progress has been made in the treatment of leprosy, and the change of attitude from the desperate nihilism to the hopeful situation of to-day is really marvellous, especially for those who in their practical work have had the opportunity of seeing this change in peoples' minds. The great altruistic institutions have begun to dedicate all their energy in saving as many victims as possible from a disease which should become more easily prevented in the future.

One of the most outstanding therapeutic advances is in the domain of acute infections of the eye. These are the most dreaded of all complications of leprosy, and almost invariably after years of suffering result in blindness. This fact is shown by the large number of blind inmates in leprosy establishments, and in the blind lepers who live as beggars along the roads in the more primitive countries. This tragic situation is fortunately much improved since the introduction of modern chaulmoogric treatment, and in many cases modern therapeutic measures in leprosy will be sufficient to prevent the more severe eye infections, and if special treatment is started from the very beginning, that is with the first symptoms, the outlook is very hopeful.

Generally the affection of the eyes begins with keratitis and ititis, which in so many cases would result in a panophthalmitis and the final destruction of the eyes because they did not respond to any treatment.

From my own experience in Habana during the past years I have seen in more than thirty cases of ocular leprosy the remarkably good effect of two organic gold compounds which are sold under the name of Krysolgan and Solganal. These have already given very satisfactory results in my experiences in tuberculous infections of the eye, so I feel certain that they will also have a curative effect on eye infections in leprosy. As soon as the first injection has been given the patient feels the relief because the irritation of the eye, photophobia, eipihora and the dreadful pains disappear in a magical way. As the injection and other inflammatory symptoms diminish the visual power is also markedly improved and with it the general state of health and the spirits of the patient, who does not feel so helpless as before. As a matter of fact ocular complications have become rare in the large home of Habana since the treatment has been applied as soon as a fresh case presented itself.

Several leprologists have also confirmed this statement regarding the good effects of Krysolgan and Solganal in eye cases. Col. Kirkpatrick (late professor of pathology at the Medical College, Madras, also ophthalmologist at the same college) in a private communication tells me of the excellent and beneficial results in patients of his who were treated with preparations of gold salts.

The technical application of the gold treatment is very simple, and it can be recommended for general use.

Krysolgan is not toxic for the healthy organism. The preparation does not directly attack the specific germs in the human body, but has a stimulating influence on the diseased tissues increasing their antibody production. By the sudden

decay of the specific tissue and resorption of the corresponding toxic products, sometimes an allergic febrile reaction has been observed in the treatment of tuberculous cases which make it necessary to be careful. But in leprosy this reaction seems to be less marked and I have really never seen any alarming or untoward effects which demanded my special attention or interfered with the treatment.

As the action of the preparation in the body is not a bactericidal but rather a catalytic one, it does not depend on high doses. Smaller ones are often sufficient or better, so that it is largely a matter of therapeutic skill and personal experience to adjust the dose so as to obtain the best results in an individual case and avoid doing any harm to the patient or his eyes.

Krysolgan is a pale yellowish powder which is sold in sealed ampoules in a series of increasing doses of 0·0001 gram, 0·0005 gram, 0·001 gram, 0·01 gram, 0·05 gram, 0·1 gram. The powder contained in one tube is always dissolved in 2 c.c. of freshly distilled perfectly sterilised water and injected under aseptic conditions beginning with the smallest doses which are increased with each injection as long as they do not produce an allergic reaction. By diluting the injections with the same quantity of saline solution they are still better tolerated. Generally one injection is given every five to seven days, and not more than six or seven injections should be given in one period of treatment in eye cases, because as a rule the effect will be complete after the first three to four injections and often a good after-effect may still present itself if the treatment has already been finished. Eventually the injections may be repeated after an interruption of two to three months, but only exceptionally will this be necessary in eye cases, because from my experience the good curative influence is not only rapid, but also permanent, and I have never seen a tendency to relapse in acute and not too far advanced cases, if once cured. Of course, chronic cicatriceous cases cannot be expected to give the same favourable results as the acute inflammatory processes, though even in such more advanced cases the treatment might be tried and may have some useful influence. Though perhaps it does not repair what has been destroyed already nor the visual power that has been lost, it may considerably allay the very molesting pains of the patient. At all events, it is necessary to begin the treatment as early as possible, if the least irritation of the eye has presented itself, and the visiting surgeon should always pay special attention to see that the slightest eye affection, perhaps neglected by the patient himself, should immediately

find the corresponding treatment as a prophylactic measure by which it is absolutely possible to prevent further complications and blindness in almost all the cases. For this reason the gold preparations should always be at hand in the homes and also in the eye clinics which may have to deal with patients suffering from leprosy.

The treatment of Solganal, a modification of Krysolgan, is similar. The preparation is still less toxic and is usually supplied in bigger doses of 0.025 gram, 0.05 gram, 0.1 gram, 0.25 gram, 0.5 gram, which are also dissolved in 2 c.c. of distilled water in each case and injected intravenously with the necessary sterility. There is still another modification called Solganol B. for subcutaneous injections, but in leprosy I generally prefer the intravenous treatment.

Considering the great effect of gold salts in leprotic infections of the eye I feel sure that these preparations should be of practical importance also in the general treatment of the disease, especially if they are combined with chaulmoogra oil. I have personally seen some very encouraging results of gold treatment in leprosy, and several authors have had the same experience. Paldrock reports very favourably on the gold treatment of leprosy combined with freezing of the nodules of the skin by carbon dioxide. Further experiments should be carried out with gold preparations. It has still to be determined which forms of leprosy are most suited for this treatment and it is possible that the therapeutic results may be more marked in one stage or type of the disease than in another.

I feel convinced that in leprosy we should not rely exclusively on one medicament, but should try all the methods available in order to obtain complete success. Though chaulmoogra oil is an important therapeutical agent still I have seen many good results from its combination with other preparations. Only by long experience and systematic trials will it be possible to find the indication which fully corresponds in each individual case. Because of the great hope of present day therapeutics nothing should be left untried to help the patient to get rid of his infection.

I suggest that a fair chance should be given to the new chrysotherapy in leprosy, because it is simple and promising, and we have only begun to study its possibilities. But in no case should gold treatment be omitted if the eye of a patient is affected and in danger, because our experiences already allow us to hope that by its early application it will always and easily be possible to treat such cases and to prevent great and long lasting sufferings, blindness and loss of sight.