A Description of the Work at the Leprosy Hospital at Ngomahuru, Southern Rhodesia.

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THERE are now well over 400 patients in this hospital, the bulk of them being voluntary. They all live in the place in five villages, there being no out-patients, and treatment is carried out at the hospital, which is centrally placed within the 8,400 acres comprising the hospital grounds. The whole area is bounded by a wire fence, the use of which is to keep out cattle and other straying animals, and to keep in the slaughter cattle, which are bought in lots of 50 or so, and kept in the place until required. In arranging the patients in the villages, all open cases are housed in one village by themselves, whilst in the remaining four, consideration is given to tribal and sex differences, so that there is (1) single indigenous village; (2) single foreign; (3) married indigenous; (4) married foreign. Single unmarried girls live in the married quarters.

The patients are allowed to have visitors, who are housed in a separate compound, and who are not permitted to stay longer than a week, their names and dates of arrival being entered in a visitor's book. This system of visitors is one which is very much appreciated by the patients and is not

abused in actual practice. It is found that visitors come from as far as 200 miles. There are seldom more than half a dozen at one time. It is found too that visitors generally come to report some kind of trouble which has occurred at home, about which they wish to consult the patient, and they generally stay only a night or two.

Another system which is also very much appreciated is that of writing letters for the patients to their relatives and friends. This keeps them in touch with their homes, and serves a most useful purpose in producing a feeling of contentment. The natives of this part of Africa possess a close family bond, and are very fond of their children, of whose welfare they are most solicitous. In actual practice some 25 to 30 patients' letters are posted every week, and travel post free, being merely stamped with the office stamp.

Exercise is considered most important. The patients both male and female are arranged in gangs and are employed for four mornings in the week from 7.30 to noon on any kind of work which is required to be done and for this they are paid 1d. a day. They make bricks (receiving for this work 2d. a day as this is hard work), construct roads, build houses, plant trees and avenues and tend these, sweep compounds, make beds and chairs, do blacksmithing, grow vegetables in a large common garden, etc. In the afternoons they are left to do what they please, and generally spend the time on their own small farms, and in trapping wild animals.

The children attend a school every afternoon from 2 to 4, and there is also a sewing class under the supervision of the Matron where clothing is made, and it is found that a great deal of expense is thus saved.

Mealie meal is issued once a week (about $1\frac{3}{4}$ lb. per head per day), and about $\frac{3}{4}$ lb. of fresh meat is given out twice weekly. Vegetables are issued daily, and play a very important part in the dietary. Leave of absence is granted at intervals, the patient, if not in an infective state, being allowed to visit his home for a fortnight, or even longer if considered desirable. These visits occur during the intervals of treatment.

Missionaries visit the hospital frequently, holding services which are well attended, and administering the Sacrament to those desiring it. So much for general routine.

Treatment.

The drugs used here are alepol, esters in the form of Bayer's antileprol, E.C.C.O., and hydnocreol all given

intramuscularly, or intradermally. Externally, a liberal use of trichloracetic acid is employed, and chaulmoogra oil is applied to areas which have been treated with the acid.

Of the above, antileprol is considered the best, but it is too expensive for continuous use. It is given intramuscularly and intradermally in increasing doses up to 5 c.c. Injections are practically painless, and seldom cause abscesses. Alepol has the great merit of being cheap. It is used in 6 per cent. solution, instead of the usual 3 per cent., since this keeps down bulk, and it is found to be well borne, up to a point, when the patient shows signs of saturation by failing to absorb the injection, and by showing a tendency to abscess formation, of a non-septic type. Septic abscesses also are not uncommon. At the end of a course of alepol, it is not unusual for me to be called to the dressing shed to open abscesses. This very seldom happens with antileprol, which is much preferred by the patients themselves. Injections are given twice weekly, until the patients show signs of saturation by failing to absorb, or by abscesses.

For purposes of comparison, a dozen patients have been treated with continuous alepol, another dozen with continuous antileprol, and another dozen with these two alternately for six to eight weeks, that is alepol for six to eight weeks, followed by antileprol for a similar period, with an interval of one to two weeks in between. Results are not strikingly different, but certain facts have been ascertained.

Continuous alepol produces a tendency to abscess formation. It becomes increasingly painful. The disease is controlled fairly well. Continuous antileprol does not lead to abscesses, and does not become increasingly painful. The disease is controlled equally well, if not better.

The alternation method shows slightly better results than either of above. Ulcers appear to heal more rapidly and the disease is controlled to a greater degree. If expense were of no consideration, I should use antileprol and alepol alternately as a routine. I am of opinion that antileprol is much more effective when given intradermally. It is the practice in this hospital to give intradermal injections only into nodules and infiltrated areas, and not into hypopigmented areas, unless the edges are very much raised and papulated. In the one and only European case here, of type N_1C_2 intradermal injections have had to be discontinued entirely since the patient always felt faint, and broke out into a cold sweat. Intramuscular injections cause no discomfort whatever. This patient has been here for nine months' on continuous antileprol, and has improved very much indeed.

He has only slight neural symptoms in one ulnar, and these have definitely ameliorated, but he has extensive macules and small nodules, many of which have already faded completely. His local reactions are small, if noticeable at all, and he has not yet had any general reaction.

E.C.C.O. and hydnocreol have not been used on a large scale, because it was found that the fluid had to be evacuated on many occasions. Especially was this so with hydnocreol. It was not absorbed, and the evacuated fluid showed little or no change from the original fluid.

Mention has been made of trichloracetic acid, and great faith is attached to it. I believe the best way of treating nodules and infiltrations of ears, is to destroy them completely with repeated applications of the acid, using chaulmoogra oil locally at the same time. I have several striking results from this method, as shown by the photographs of Gwawiya. This boy will do anything to get hold of trichlorcetic acid ! It is used in strength of one in one or one in two for destroying nodules. The areas heal well, but with a hypopigmented scar.

I would like to take this opportunity of placing on record the very generous gift of the B.E.L.R.A., to this hospital, of a most helpful water supply. Formerly one had to be content with a basin and a jug of water in the hospital, but thanks to the B.E.L.R.A., we now have hot and cold water laid on to the treatment room, laboratory, dispensary, and dressing shed, as well as to the staff quarters.