

TREATMENT WITH DIASONE — TWELVE
MONTHS' EXPERIENCE WITH 22 PATIENTS—
AN INTERIM REPORT

A. B. MACDONALD.

The following is an account of the treatment with diasone of 22 patients for twelve months beginning September, 1947.

The cases chosen were all lepromatous, and among the worst on the roll. Preference was given to those who were longest in the colony, a number of them being with us 15 to 20 years. These had been receiving "standard" treatment all the time, and had long been considered incurable. A well-known leprologist who visited us, and saw them, questioned if we could make anything of such patients. However, perhaps for sentimental reasons, these "old friends" got the first chance, and on the whole it has been justified. It is obvious of course that more spectacular results would have been obtained had the trial been made with early lepromatous cases. But again we find that early lepromatous cases do respond frequently to treatment with hydnocarpus oil and become negative. It was therefore desired to test the claim that diasone was effective in old-standing cases where hydnocarpus oil had definitely failed.

Each patient was given one tablet (0.3 grm) every second day, and then one every day, gradually increasing to four tablets daily seven days a week as a maximum where there was general improvement, no diminution in the percentage of haemoglobin, and no appearance of fresh nodules. If so, administration was stopped for two weeks, and then begun again. All have had Gr. 30 Ferri et Amm. Cit. b.i.d. from the commencement of treatment.

One man developed a severe conjunctivitis of the left eye, several had an outbreak of new nodules, which except in one case all subsided within two weeks.

In four patients the haemoglobin percentage diminished, and has not risen to date in spite of getting iron and liver therapy.

Small injections of hydnocarpus oil continued more or less for their psychological effect. As years of injections had little effect before, it follows that any improvement now could be credited to diasone.

RESULTS OF 22 CASES—ACTIVE AND ADVANCED.

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|---------------------|-----|-----|----|
| Markedly improved | ... | ... | 6 |
| Moderately improved | ... | ... | 6 |
| Slightly improved | ... | ... | 9 |
| Slightly worse | ... | ... | 1 |
| | | | — |
| | | | 22 |
| | | | — |

In general, with one exception, there was noticeable improvement, in six cases this being marked. The patients themselves were very pleased indeed; indeed they were pathetically hopeful, although it is surprising if many of them had not abandoned hope for some years. In almost every case the ulcers cleared up, the general health improved, the nodules flattened and decreased in size, while the macules faded. Those with nodular eyes were too far gone to show any striking improvement, but the laryngeal trouble which two of them had cleared up and the voice returned. Bacteriologically the skin in two patients became negative, the nose in one. In some the numbers of bacilli became less, while in others there was degeneration, and they seemed less "acid-fast." On the whole the results were encouraging, and certainly there *were* results, where before with hydnocarpus oil there were little or none. I have every hope that the improvement shown will continue with further administration of the drug.

The details are appended:—

CASE 1: REG. NO. 1120: MODERATELY ADVANCED, ACTIVE.

Sept. 1947: Entered Colony 1930, Male, aged 32. Was home for five years without permission. Generally diffused type with small nodules throughout skin. Has bright erythematous papules or macules occasionally which are sometimes positive on laboratory examination. These come and go after weeks, Skin became negative in 1944 and has remained so since apart from three temporary outbreaks. Has been a resistant case otherwise.

Laboratory report: SKIN 0/40, NOSE 40/1, S.R. 21, Hb. 60%.

Sept. 1948: General health has improved. Skin still shows some depigmentation, faint but active, the nodules have flattened and there has been no appearance recently of any erythematous papules. He is strong and well.

Laboratory report: SKIN 0/50, NOSE 0/50, S.R. 38, Hb. 90%—moderately improved.

CASE 2 : REG. NO. 846 : ADVANCED ACTIVE.

Sept. 1947: Entered colony 1932. Male, aged 14. Looked a reasonably promising case on arrival but during the last ten years has gone down hill very considerably. Face and ears very nodular. Skin covered with diffuse depigmentation throughout, main en griffe both hands. Legs show gross trophic changes with many small coalescing erythematous patches. Has ulcers on legs and sole of left foot, apparently a hopeless incurable case.

Laboratory report: SKIN M/I, NOSE M/I, S.R. 42, Hb. 50%.

Sept. 1948: Ulcers have all healed up. Nodules have partly subsided but face is last to change and looks still active and erythematous. Raised thickenings on legs have gone down. Erythema elsewhere than on face has faded.

Laboratory report: SKIN M/I, NOSE 40/I, S.R. 57, Hb. 55%—slight improvement.

CASE 3 : REG. NO. 961 : ADVANCED ACTIVE.

Sept. 1947: Admitted to colony 1928. Male, aged 25. Was away for one year. Has gradually deteriorated. Complete depigmentation of skin seems to have taken place. Has always been bacteriologically positive. Ears nodular and there are a few nodules scattered on trunk. He has always been reasonably strong and able to work.

Laboratory report: SKIN M/I, NOSE M/I, S.R. 39, Hb. 65%.

Sept. 1948: Improved. Feels better. Had new lepromatous spreading macules on face and trunk which lasted for four weeks and then subsided. During this period treatment was suspended. Other nodules have all gone down. The skin generally is less active. He has more sensation in his legs.

Laboratory report: SKIN 10/I, NOSE 60/I, S.R. 20, Hb. 98%—moderately improved.

CASE 4 : REG. NO. 4462 : MODERATELY ADVANCED—ACTIVE.

Sept. 1947: Admitted 1940. Male, aged 12. Has shown improvement since admission but still positive skin and nose. Has

still nodules on ears, flattened nodules on face and some on legs, with general erythema of skin. Looks still an active case.

Laboratory report: SKIN 30/1, NOSE M/1, S.R. 30, Hb. 60%.

Sept. 1948: All nodules have subsided, the erythema has faded, the ears are almost normal. He is strong and well.

Laboratory report: SKIN 0/50, NOSE 30/1, S.R. 46, Hb. 80%
—markedly improved.

CASE 5: REG. NO. 73: ADVANCED ACTIVE.

Sept. 1947: Admitted 1927, Male, aged 20. This is the oldest case in the colony, being here 20 years with some intervals at home. Now is very advanced, nodules all over face, coalescing nodules on limbs, legs show gross trophic changes with breaking down of skin and shallow ulceration. The skin is permanently depigmented. The left eye is nodular, and the sight in this eye is lost. The larynx is affected and he has aphonia. In spite of all this he usually is able to carry on his trade as a carpenter.

Laboratory report: SKIN M/1, NOSE M/1, SR. 53, Hb. 60%.

Sept. 1948: Has shown improvement, the nodules have subsided considerably and the ulcers all healed up. The skin is not nearly so erythematous as it was. The left eye remains unchanged.

Laboratory report: SKIN M/1, NOSE M/1, S.R. 28, Hb. 75%
—moderately improved.

CASE 6: REG. NO. 828: ACTIVE ADVANCED.

Sept. 1947: Admitted 1931 as boy of 14 years. Had diffuse depigmentation affecting entire skin. Ears nodular, and there are large nodules on legs and arms. Skin shows gross trophic changes in legs, with diffuse thickenings and skin breaking in parts forming ulcers. The left eye is blind with nodulation and keratitis. He suffers from aphonia. Is anaemic—R.B.C. 2,750,000. W.B.C. 8,200.

Laboratory report: SKIN M/1, NOSE M/1, SR. 42, Hb. 50%.

Sept. 1948: The nodules have somewhat subsided, the ulcers have healed, his voice has returned, the general health has improved, the left eye is unchanged.

Laboratory report: SKIN M/1, NOSE M/1, S.R. 70, Hb. 50%
—slightly improved.

R.B.C. 2,790,000, W.B.C. 10,200.

CASE 7: REG. NO. 1371: ACTIVE ADVANCED.

Sept. 1947: Admitted 1931, Male. Was home for five years. Gross depigmentation throughout with slight nodulation of ears. Had removal of metatarsal bone following ulceration. Still has ulcer on heel and one on great toe.

Laboratory report: SKIN 60/1, NOSE 10/1, SR. 85, Hb. 85%.

Sept. 1948: Skin has improved. Nodules on ears are reduced in size. Had ulcer below great toe and heel. Part of calcaneous bone removed. Was in hospital for some weeks during which treatment was stopped. Has had on two occasions conjunctivitis. Ulcer is now healing up. He feels better and certainly looks it. The skin is now negative but still erythematous.

Laboratory report: SKIN 0/50, NOSE M/1, S.R. 20, Hb. 95%
—slightly improved.

CASE 8: REG. NO. 2519: ACTIVE ADVANCED.

Sept. 1947: Admitted 1933, aged 35. Was home 3 years. Has got gradually worse and suffers from anaemia. Skin shows general diffuse depigmentation. Abdomen is covered with very large thick coalescing nodules. There are also nodules on face, ears, back and legs. Feet show some ulceration,

Laboratory report: SKIN M/1, NOSE M/1, SR. 55, Hb. 45%.
R.B.C. 3,240,000, W.B.C. 5,600.

Sept. 1948: Anaemia has become worse—now 30%. He reached three tablets of Diasone but this had to be reduced to one daily. The nodules on abdomen are going down, the depigmentation of skin is less. The ulcers on feet have healed.

Laboratory report: SKIN M/1, NOSE M/1, SR. 39, Hb. 30%
—slightly improved.
R.B.C. 1,690,000, W.B.C. 9,200.

CASE 9: REG. NO. 3347: ACTIVE ADVANCED.

Sept. 1947: Admitted 1937, Male, aged 45. Complete depigmentation of skin, with nodules on ears and scattered throughout body. Very active. Has had numerous leprotic reactions and looks an incurable case. Had an ulcer below left great toe.

Laboratory report: SKIN 80/1, NOSE M/1, SR. 25, Hb. 60%.

Sept. 1948: He feels better and more active, the nodules have diminished in size, the ulcer has healed. Has suffered from conjunctivitis of left eye. Looks still an active lepromatous case.

Laboratory report: SKIN M/I, NOSE M/I, SR. 35, Hb. 70%
—slightly improved.

CASE 10: REG. NO. 3487: ACTIVE ADVANCED.

Sept. 1947: Admitted 1937, Male, aged 13. Skin depigmented throughout with gross trophic changes in legs with ulceration, has flattened nodules on face and on arms and legs. There are various patches of depigmentation throughout skin. He is a debilitated subject, and anaemic.

Laboratory report: SKIN M/I, NOSE M/I, SR. 65, Hb. 55%.
R.B.C. 2,850,000, W.B.C. 5,800.

Sept. 1948: Some improvement has taken place, the nodules on the face have subsided to some extent. The nodules on the legs seem to be stationary, and he complains of neuritis of his legs. The ulceration on legs has finished.

Laboratory report: SKIN M/I, NOSE M/I, SR. 62, Hb. 58%
—slightly improved.
R.B.C. 2,910,000, W.B.C. 9,400.

CASE 11: REG. NO. 1960: ACTIVE ADVANCED.

Sept. 1947: Admitted 1932, male, aged 25. Has steadily deteriorated. There are nodules and gross depigmentation throughout body. The distal phalanges of all fingers have ulcerated off. He has had several operations for the extirpation of meta-tarsals. He is always developing a new ulcer. Apparently an incurable case, and is incapable of work—R.B.C. 3,680,000.

Laboratory report: SKIN M/I, NOSE M/I, SR. 40, Hb. 55%.

Sept. 1948: There has been some improvement, and he is now able to walk about and do some light work, the nodules have become reduced in size and the skin looks less active. On the hands the ulcers have healed up, and the feet are improving. The anaemia is less.

Laboratory report: SKIN M/I, NOSE M/I, SR. 22, Hb. 65%
slightly improved.

CASE 12: REG. NO. 1150: ACTIVE ADVANCED.

Sept. 1947: Admitted 1929 as small boy, entire skin had changed following depigmentation. Was discharged 1938 but re-admitted 1942 with active nodular leprosy—very disappointing case. There are nodules on face and scattered throughout body, and gross trophic changes in legs with widespread thickenings. He suffers from anaemia—R.B.C. 2,870,000, W.B.C. 4,760.

Laboratory report: SKIN M/I, NOSE M/I, SR. , Hb. 55%.

Sept. 1948: More nodules appeared on arms but subcutaneous and of temporary duration. Those on the surface of the skin have subsided. He feels better he says, but is still an active lepromatous case. Has been getting latterly two tablets per day.

Laboratory report: SKIN M/I, NOSE 60/I, Hb. 52%—slightly improved.

R.B.C. 3,170,000, W.B.C. 12,800.

CASE 13: REG. NO. 860: ACTIVE ADVANCE.

Sept. 1947: Admitted as small boy in 1932. Generally depigmented and has nodules on face and ears with gross trophic changes on the skin of legs. Several raised erythematous patches elsewhere. Those on legs are breaking and ulcerating. Had ulcers on soles of feet, Two meta-tarsals removed at operation, main en griffe both hands. Seems an intractable stationary case.

Laboratory report: SKIN 80/I, NOSE M/I, SR. 36, Hb. 55%.

Sept. 1948: Much improved. All ulcers healed. Had temporary outbreak of fresh nodules which vanished in two to three weeks. Nodules on ears and elsewhere have all unquestionably subsided. He feels better, and it is a relief to see him go about without bandages which he had for years.

Laboratory report: SKIN 40/I, NOSE M/I, SR. 29, Hb. 70%—markedly improved.

CASE 14: REG. NO. 6586: ACTIVE ADVANCED.

Sept. 1947: Admitted 1932. Has been at home at intervals for several years and indeed joined the Army. A general diffused depigmented case with multiple large coalescing nodules on back, arms, legs and some on face. Ears are grossly nodular and enlarged. His feet are swollen, and there are some ulcers on both feet. Within the last year he has got much worse.

Laboratory report: SKIN M/I, NOSE M/I, SR. 41, Hb. 60%.
R.B.C. 3,350,000, W.B.C. 3,700.

Sept. 1948: Has had still another outbreak of new nodules like those of a year ago on the surface of the skin which have remained. Diasone was stopped and then begun again at one tablet per day. Feet are grossly enlarged.

Laboratory report: SKIN M/I, NOSE M/I, SR. 70, Hb. 45%—slightly worse.

R.B.C. 3,250,000, W.B.C. 10,600.

CASE 15: REG. NO. 8043: ACTIVE ADVANCED.

Sept. 1947: Admitted 1937, female, aged 12. There are multiple patches and nodules all over body. Lately has gone down hill very much and looks active plus plus. Right eye nodular and vision impaired. R.B.C. 3,880,000.

Laboratory report: SKIN M/I, NOSE M/I, SR. 55, Hb. 60%.

Sept. 1948: Somewhat improved. Nodules have become reduced in size, and patches show less erythema. The eye remains unchanged.

Laboratory report: SKIN M/I, NOSE M/I, SR. 40, Hb. 70% slightly improved.

CASE 16: REG. NO. 4272: ACTIVE ADVANCED.

Sept. 1947: Admitted 1937, male, aged 27. Has nodules on face, arms, legs and trunk. The ears are grossly enlarged and nodular. There are multiple erythematous patches throughout. The right ulnar nerve is considerably enlarged. The left foot has talipes varus due to nerve involvement. He is anaemic. Is an active case but still able to work.

Laboratory report: SKIN M/I, NOSE M/I, SR. 60, Hb. 55%.
R.B.C. 2,930,000, W.B.C. 4,400.

Sept. 1948: He has much improved and indeed looks a different man. The nodules have all gone down and the erythema has faded. The foot is straighter and the anaemia improved.

Laboratory report: SKIN M/I, NOSE M/I, SR. 60, Hb. 65%
—markedly improved.
R.B.C. 3,310,000, W.B.C. 9,800.

CASE 17: REG. NO. 1886: ACTIVE ADVANCED.

Sept. 1947: Entered colony 1931, male, aged 25. Was home for three years. Returned very nodular, and has got steadily worse. Ulcers on feet with years of dressings and several operations. At present is very active case with multiple small nodules throughout and large ones on face. Main en griffe. Skin of legs much disfigured with trophic changes. Larynx is affected.

Laboratory report: SKIN M/I, NOSE M/I, SR. 57, Hb. 55%.

Sept. 1948: Not much change. Says he feels better but has still many active papules on trunk. The ulceration shows some improvement—the ulcers having dried up leaving small holes. The gross nodules have subsided somewhat.

Laboratory report: SKIN M/I, NOSE M/I, SR. 65, Hb. 68%
—slightly improved.

CASE 18: REG. NO. 716: ADVANCED ACTIVE.

Sept. 1947: Came here as boy of 14 in 1930. He has diffuse depigmentation throughout body, with gross nodules on face, arms, legs, front of chest and abdomen. Has ulceration of hands and feet with gross trophic changes. He has got gradually worse and looks a hopeless and incurable case. R.B.C. 3,890,000. The left eye is nodular.

Laboratory report: SKIN M/I, NOSE M/I, SR. 26, Hb. 60%.

Sept. 1948: Improvement has taken place, the nodules have gone down, the general health improved, the ulcers on feet have improved, the eye is giving less trouble, nodules on ears have flattened out.

Laboratory report: SKIN M/I, NOSE M/I, SR. 52, Hb. 65%
—slightly improved.

CASE 19: REG. NO. 2067: ACTIVE ADVANCED.

Sept. 1947: Admitted 1937, female aged 30. Has worst nodular skin in entire colony. Very gross thick raised coalescing nodules all over body. Surprisingly face has got off lightly but ears are plus plus. There are diffused thickenings on legs. R.B.C. 3,350,000.

Laboratory report: SKIN M/I, NOSE M/I, SR. 49.5, Hb. 50%.

Sept. 1948: She has considerably improved, but there is ample room for more. The nodules have been reduced throughout. She feels better and is able to work. She is less anaemic.

Laboratory report: SKIN M/I, NOSE M/I, SR. 40, Hb. 80%
—markedly improved.

CASE 20: REG. NO. 4872: ADVANCED ACTIVE.

Sept. 1947: Entered colony 1941, male aged 25. Has got worse. At present has multiple nodules all over face, limbs and body. There are diffuse thickenings on legs. The ears are grossly nodular. Some anaemia—R.B.C. 3,850,000.

Laboratory report: SKIN M/I, NOSE M/I, SR. 66, Hb. 60%.

Sept. 1948: The nodules have gone down 50%, the legs remain unchanged, the ears are flattened. He feels stronger. The anaemia is less.

Laboratory report: SKIN M/I, NOSE M/I, SR. 57, Hb. 75%
—markedly improved.

CASE 21 : REG. NO. 796 : ADVANCED ACTIVE.

Sept. 1947: Admitted 1929 as a boy of 13. Skin is completely depigmented, the legs show trophic changes and ulcerations. Has spent various periods extending to months in hospital. There is great disfigurement of nose—septum seems to have eroded away. Is continually getting attacks of leprotic fever.

Laboratory report: SKIN 60/I, NOSE M/I, SR. 42, Hb. 55%.
R.B.C. 3,350,000, W.B.C. 9,600.

Sept. 1948: There is some improvement. The nodules have gone down to some extent and the extensive ulceration has healed up, leaving one ulcer below great toe. The trophic changes remain, as does the anaesthesia of legs and hands.

Laboratory report: SKIN M/I, NOSE 40/I, SR. 67, Hb. 50%
—slightly improved.
R.B.C. 3,420,000, W.B.C. 5,600.

CASE 22 : REG. NO. 7853 : MODERATELY ADVANCED ACTIVE.

Sept. 1947: This is a recent admission, 1946, man aged 45. General diffused depigmentation with nodules on ears and a few throughout body and on face there are large coalescing nodules. R.B.C. 3,700,000.

Laboratory report: SKIN M/I, NOSE M/I, SR. 45, Hb. 60%.

Sept. 1948: All nodules have subsided, patches have faded. His general health is good. This is the most favourable case that was started and he has made the best response.

Laboratory report: SKIN 40/I, NOSE M/I, SR. 50, Hb. 80%
—markedly improved.

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We are greatly indebted to the American Mission to Lepers for supplying diasone free for these patients.