

The Use of Durabolin in Malnutrition

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In view of the present concept that kwashiorkor is primarily due to protein deficiency, it was decided to use an anabolic substance in treatment of kwashiorkor and asthenic malnutrition as seen in the Lilongwe district of Nyasaland. No controlled trial was possible, but the results of treatment were compared with a previous group treated without Durabolin.

MATERIALS AND METHODS

All children suffering from malnutrition were examined and the dietary history noted and classified as either kwashiorkor or asthenic malnutrition. In passing, it may be said that the separation of these two types is far from absolute, as the author has seen two infants pass from the asthenic picture to that of full-

blown malignant malnutrition with typical dermatosis in a matter of two or three weeks following gastroenteritis. Further, all children here gave a history of a diet grossly deficient in protein, whether of the asthenic or malignant type.

At first only those judged clinically to be severe were given Durabolin, but later any child whose mother was prepared to allow it to stay was also given the drug in a dose of 12.5 mg. weekly for children under two years and 25 mg. for children over two years. All patients were given skimmed milk, modified Hartmann's solution, antimalarials, sulphaguanadine and penicillin or a broad spectrum antibiotic and a multivitamin syrup. Intravenous or subcutaneous fluids were given as required. Bi-weekly weighing was carried out and more often if it seemed necessary.

Those children who were judged to have died from associated disease such as cancrum oris or gastroenteritis were still included in the deaths due to malnutrition. Eighteen patients were treated with Durabolin and the mortality is compared with a previous 18 treated by the usual methods.

RESULTS

In the Durabolin group two patients died of kwashiorkor and one of cancrum oris. Six absconded from hospital, and of these four were unlikely to have survived, bringing the total number of deaths to seven.

Of the 18 not given Durabolin, eight absconded and six died. Six of those absconding would certainly have died and the other two probably; this makes the total number of deaths 12.

Individual examples of the various types are cited below.

Case 12.—This child of 18 months, with oedema, soft depigmented hair and the typical dermatosis, was given the routine treatment without Durabolin. The oedema increased and weight rose from 18 lb. 4½ oz. to 18 lb. 12 oz. Durabolin was given and 1 lb. was lost in three days, and in five days the oedema had gone. After further treatment the child continued to improve and 30 days later weighed 20 lb. in spite of loss of oedema fluid.

Case 14.—This child of 10 months had asthenic malnutrition, and in spite of a month's routine treatment failed to gain weight and was whining and miserable, with a very poor appetite. Following Durabolin, his weight rose from 11 lb. to 13 lb. 12 oz. in 30 days.

Case 15.—This child of 15 months had asthenic malnutrition complicated by tuberculous adenitis, and with routine treatment was going downhill and losing weight. Durabolin was given, and in two weeks he gained 1 lb. and thereafter continued to improve.

DISCUSSION

It is realised that this is not a controlled trial and that the assumption of deaths in those absconding is no more than clinical impression, but the rapid disappearance of oedema in the kwashiorkor children and gain in weight in the others were very striking. We were not getting the same results without it.

The mortality in kwashiorkor varies greatly in different parts of Africa (Gillman and Gillman (1951). Gelfand (1956) reports a mortality of 90 per cent. in 1946, falling in 1958 to 20 per cent. It is possible that the reduction in mortality noted in this series was due to seasonal variation, but such a change in the severity was not apparent.

Among the gratifying features seen in those treated with Durabolin was the rapid improvement in the child's sense of wellbeing. In a matter of a week the child was transformed from a whining, irritable bundle of misery to a smiling, co-operative, hand-shaking little fellow.

This trial was weighted against the Durabolin treated group, as in the first eight or so treated only those judged to be severe were included, milder cases being given the routine treatment only.

In only one case was any side effect observed, and that occurred due to a mistake in dosage and frequency of injections, resulting in slight hypertrophy of the clitoris in a female child.

It must be stressed that the use of this protein anabolic substance was only additional to the use of milk and other treatment.

SUMMARY

A small series of patients with kwashiorkor and asthenic malnutrition has been treated with Durabolin. It is thought to be a useful addition to treatment and to merit a controlled trial.

REFERENCES

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