

The feasibility of organizing such work on a general-practitioner level is assessed, and the abundant demand for and value of such a service is demonstrated.

We are grateful for the help and encouragement given by the following consultants: Dr. J. Diggle, Dr. W. Ingman, and Dr. N. E. Rankin. Ames Ltd. kindly donated a supply of Hema-combistix, and the following pharmaceutical companies provided generous financial assistance: British Drug Houses, Beecham, Boots, Geigy, Glaxo, Imperial Chemical Industries, May & Baker, and Merck Sharp & Dohme. Dr. J. Beech, of the Lincolnshire Mass Radiography Service, kindly arranged for us to use a mass miniature radiography unit. Dr. J. Fielding, the local medical officer of

health, was a great source of encouragement to us throughout this project. We would like to thank the local nurses who gave so willingly of their spare time to help us.

REFERENCES

- Acheson, R. M., *et al.* (1963). *Publ. Hlth (Lond.)*, 77, 261.
 College of General Practitioners (1962). *Brit. med. J.*, 1, 1497.
 Donaldson, R. J., and Howell, J. M. (1965). *Ibid.*, 2, 1034.
 Luntz, M. H., *et al.* (1966). *Glaucoma*, edited by L. B. Hunt, p. 18. Edinburgh.
 Walker, J. B., and Kerridge, D. (1961). *Diabetes in an English Community*. Leicester.
 Wright, J. E. (1966). In *Glaucoma*, edited by L. B. Hunt, p. 12. Edinburgh.

CONTEMPORARY THEMES

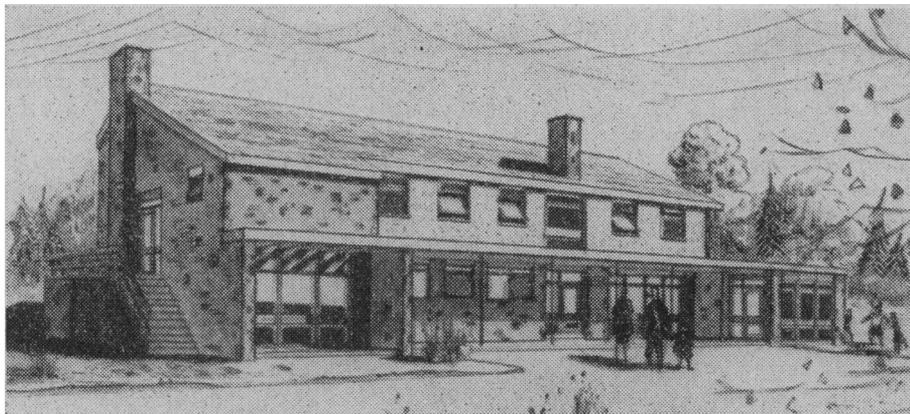
"Cruachan"—A Home for Children with Metabolic Needs

C. V. BLOOM,* B.A., M.B., B.S.; JAMES W. FARQUHAR,† M.D., F.R.C.P.ED.

Brit. med. J., 1967, 2, 758-759

Diabetes mellitus affects about 35 children in every 100,000 between birth and 16 years of age, though the incidence may be higher in some places than in others (Farquhar, 1962). The same size of population may yield 50 children with gluten-sensitive enteropathy, 10 with phenylketonuria, and a scattering with rarer inborn errors of metabolism. All of these disorders share at least two things. The first is the child's dependence on a properly arranged and prepared diet, and the second is his potential for good physical and mental health. Unfortunately the first is not always available and the second is too often forfeited as a result.

The opening of Dr. Barnardo's home "Cruachan" on 29 March by Sir Maxwell Inglis at Balerno, near Edinburgh, has provided in Scotland a high standard of care for diabetic children whose home conditions are likely to prejudice seriously their health or even their survival. This is a new purpose-built home, which was provided by Dr. Barnardo's to mark their centenary year. It can accommodate 11 boys and girls, who will attend the local school and be under the supervision of the diabetic clinic of the Royal Edinburgh Hospital for Sick Children.



Need for "Cruachan"

In 1958 P. Henderson (personal communication) suggested that about 140 diabetic children in England and Wales needed a special boarding-home. Subsequently, in 1962 a survey in Scotland showed that a home was needed for 10 to 20 children. They could not be kept in hospital, though they often

needed readmission. Resident schools for the physically handicapped hesitated to take them because they were often too robust to live closely in the company of those who were weak or had locomotor difficulties. Residential schools for maladjusted children hesitated to take the not insignificant number who were emotionally disturbed because the staff was reluctant to undertake the care of their diabetes. While possible answers were being sought to this problem the children suffered—and one boy had such severe recurrent hypoglycaemia that he became ineducable.

The situation was relieved when Dr. Barnardo's began to admit diabetic children to a residential school for the physically handicapped. Though this protected children from the harmful effects of inadequate homes or provided adequate diabetic control for those whose instability defeated attentive and worried parents, the children seemed to be out of context. Their natural place was in the healthy competitive atmosphere of a normal school and not in the more sheltered one of a residential school for the disabled. They needed a real home where—with diabetes well controlled—they could work, play, and enjoy life as normal children.

Training for Independence

The principal aim of all concerned with the "Cruachan" project is to make unnecessary the long-term admission there of many children. In 1950-2 the Advisory Council on Education in Scotland recommended that "those children who are diagnosed as diabetic should attend a residential school for a period and where conditions are favourable should return to home and day-school." Henderson (1958) said of the

* Chief Medical Officer, Dr. Barnardo's.

† Consultant Physician, Royal Hospital for Sick Children, Edinburgh 9.

diabetic children admitted to homes in England and Wales that they "appear to require the care and training provided in a special boarding-home."

The efforts of a trained diabetic child may, however, be thwarted by an ignorant parent. They are certainly strengthened by the help of an informed one, and provision has been made at "Cruachan" for the admission of parent and child for training courses. There the parent can deal with insulin, prepare and serve diet, see and deal with hypoglycaemia, and observe all the things that make for a happy and active diabetic life. The child will also learn about diet, insulin, and exercise, and all in the context of a normal life in which he will go to local schools and join fully in games and hobbies.

Because of its helpful economic effect by minimizing hospital admission and readmission, the scheme may attract

financial support from the National Health Service sources—though such a possibility has still to be negotiated.

This service for the diabetic child will also be available at "Cruachan" for children with other conditions which are treated by carefully constructed diet—for example, gluten enteropathy and phenylketonuria—when parents cannot or will not manage the problem themselves.

Those interested in the service provided by "Cruachan" and who wish for further information about it should write to Regional Executive Officer, Dr. Barnardo's (Scotland), 22 Drumsheugh Gardens, Edinburgh 3.

REFERENCES

- Advisory Council on Education in Scotland (1952). Reports on the Education of Handicapped Pupils (1950–52). H.M.S.O., Edinburgh. Cmnd. 8432.
Farquhar, J. W. (1962). *Scot. med. J.*, 7, 119.

CONFERENCES AND MEETINGS

Tropical Medicine

[FROM A SPECIAL CORRESPONDENT]

A conference on Tropical Medicine was held on 2 and 3 June at the Royal College of Physicians, London.

Professor A. W. WOODRUFF (London) opened the session on "Malaria" by discussing unusual presentations of the disease. He pointed out, however, that it was not the uncommon presentations but the unfamiliarity of doctors with the common presentations which delayed diagnosis and led to the four or five preventable deaths and cases of severe illness in Britain each year. The irregularity of the fever in falciparum malaria was sometimes misleading, particularly if the doctor did not pursue the question of where the patient had been, not only recently, but in the last year or so. All patients with a fever who had been in the tropics should have a blood film examined even if it put an extra strain on the pathology laboratory. Renal failure was another mode of presentation in non-immune patients, while blackwater fever was much less common now that quinine was seldom used therapeutically—though it had to be remembered that both tonic water and tinned grapefruit juice contained added quinine. In immune patients the disease could occur with deceptive mildness. The persistence of malaria could lead to recipients of blood from infected donors presenting unexpectedly with the disease. Although *Plasmodium falciparum* had no exoerythrocytic cycle, it could maintain itself in the blood for as long as 18 months. The length of survival of the exoerythrocytic forms of the other species of plasmodium also encouraged persistence of the disease—in *P. ovale* for up to nine months, in *P. vivax* three years, and in *P. malariae* up to 20 years.

Dr. I. A. MCGREGOR (Medical Research Council) outlined the techniques at present available for the study of the immunology of malaria. Antibodies had been detected by complement fixation; these were short-lived, and their presence suggested current or recent infection. The indirect haemagglutination test was group-specific but might give false-

positive results. Immunofluorescent techniques were a great advance, but the gel-diffusion technique of Ochterlony was even easier, quicker, and reasonably permanent. Even stronger reactions were obtained with it when schizont extracts were used as the antigen rather than extracts of free forms. Further work was in progress to identify antigens and to see whether they changed during the course of the life cycle of the parasite. A high-molecular-weight antigen fraction had been detected free in the serum and Dr. McGregor speculated whether this might play a part in some of the complications of malaria—such as big-spleen disease, profound anaemia, and the nephrotic syndrome.

Malaria and Nephrotic Syndrome

Investigating the possibility of an association of the nephrotic syndrome with *P. malariae* infection, Dr. H. M. J. GILLES (Liverpool) had found the incidence of the latter to be higher in children with the syndrome in Ibadan than in children who had other illnesses or who were well. On the other hand, *P. falciparum* was the commonest infection in the general population. Nephrosis was commoner in Ibadan than in areas where *P. malariae* infections did not occur, and the age of onset was usually about 5 years—rather than in younger children, as was seen in Western countries. The prognosis of the disease was worse than elsewhere, and the response to corticosteroids or to antimalarials was poor. In the discussion Professor R. G. HENDRICKSE (Ibadan, Nigeria) said that his paediatric unit was very keen to separate children with the nephrotic syndrome thought to be due to *P. malariae* from those with the sporadic idiopathic disease. In the latter the prognosis was much better, while the response to treatment was reasonably good.

Professor B. G. MAEGRAITH (School of Tropical Medicine, Liverpool) emphasized that "Quo Vadis?" was an essential question for doctors to ask patients so that proper

prophylaxis could be provided, not only for malaria but for other preventable conditions. This, he said, was particularly important in student health services, since he had seen students return from abroad with numerous infections which were entirely unnecessary.

Visceral Leishmaniasis

Brigadier J. P. BAIRD (Royal Army Medical Corps) described the varied presentations of visceral leishmaniasis or kala-azar. From 1945–1965 few cases had been seen in Servicemen, though both the visceral and cutaneous forms had been seen since troops had been in action in the Radfan mountains north of Aden. The phlebotomus sandfly—which had fairly stringent climatic requirements—nevertheless succeeded in living in the caves and ruined buildings of this area and maintained a source of the parasite from dogs. In taking cover and digging in at night the troops had found themselves sharing the sandfly's environment. The incubation period of leishmaniasis after infection was usually three to six months, though it could be as short as ten days or as long as two to ten years. In men who had been in Aden 12 cases had now been seen, presenting in England, Germany, and Hong Kong. The onset was usually insidious but was sometimes acute with a high fever. Symptoms and signs were usually non-specific, though in spite of fever and weight loss the tongue was clean, the appetite unimpaired, and mental alertness retained. The white count was low, often less than 1,000 per cu.mm. Antibodies could now be detected by immunofluorescent techniques, while the finding—in material aspirated from the spleen, lymph nodes (if enlarged), or bone marrow—of Leishman-Donovan bodies was diagnostic. Brigadier Baird had found that splenic biopsy with a Menghini needle was safe and superior to aspiration with a narrower needle, as it provided material for both histology and culture. Treatment with sodium stibogluconate was