USE OF CAROB FLOUR (AROBON) IN ACUTE DIARRHOEAL CONDITIONS *

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Pediatricians and general practitioners have to deal with diarrhoeic ailments almost daily. Whatever its origin, diarrhoea constitutes a very real danger to children in many cases and especially infants on account of the rapid dehydration which it gives rise to and the alterations in the chemical composition of the tissue fluids and the cells themselves. At present there are some well-recognised steps in the treatment of acute diarrhoea, namely, starvation, re-hydration, correction of chemical upset and treatment of the specific cause. The first of these steps, viz., suspending all alimentation, except water in liberal amounts has, as its objectives, the withdrawal of all mechanical, chemical and physical factors causing irritation of the intestines. Usually starvation is prescribed for one to two days in severe cases until the appearance of famine stools and only then is alimentation resumed. However, it often happens that improvement in the stools takes place very slowly.

Pediatricians here and there, since the turn of this century have experimented with diets composed either of vegetable broth or one rich in cellulose or adsorbant substances in these acute diarrhoeic conditions and have observed that this method was some times quite as efficacious and far less disagreeable for the patient. Moro in 1907 advocated the use of his famous carrot soup which was afterwards supplanted by the raw apple treatment. Later banana cures became popular. A product composed of powdered carrots was recently placed in the market. This- rich in cellulose adsorbent diet became popular, especially in German countries, and was known as "Schlackenkost". The good effects of this diet seem to be dependent on the buffer and adsorbent properties ascribed to cellulose. Furthermore combined with tannin and vegetable acids, pectins and cellulose absorb the toxins that encumber

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the intestines. Also they constitute a faecal mass which promotes mechanical evacuation. On the other hand, in the Latin countries, this type of treatment did not find much favour till recent times and various types of flour, cereal, soya and sunflower, acorn, were chiefly employed in the treatment of diarrhoeic conditions.

Ramos in Spain, at the beginning of the Second World War first started using the flour of the carob, a leguminous plant native of the Mediterranean regions. He had done this because he found that the children of the poorer classes who ate large quantities of carob beans were less subject to intestinal affections than others who did not consume this.

After he published his result in 1941, Nestle's marketed this under the name of Arobon and placed at the disposal of a number of pediatricians for trial in acute diarrhoeic conditions. Very favourable reports of these trials have appeared in recent times—Marc Neyroud (1940), M. Nicod (1947), R. Martin du Pan (1945) and Schlesinger.

The present study was undertaken on a limited scale with a small amount of this Arobon placed at the disposal of the author and was used on three patients, details of which are given below:

Case 1.—Child aged 9 months ailing from bacillary dysentery (Flexner). This child's illness started acutely with innumerable stools, consisting mostly of mucus. Preliminary starvation, rehydration and sulfa group of drugs (at first Pthalyl Sulfathiazole and later Sulfaguanedine in full dosage produced some improvement but the character of the stools was not normal, containing a lot of mucus. There were still about 5-6 semi-solid evacuations daily after a fortnight's treatment. It was at this stage that the child was started on Arobon (5 per cent decoction mixed with equal parts of a half cream acid milk powder after a preliminary 24 hours diet of Arobon decoction only, with saccharine added to taste). The change in character of the stools was obvious on the next day itself, the mucus disappearing and the frequency being reduced to 3 per day. The motion was the typical Arobon stool, having the same colour as the Arobon powder. Gradually the amount of Arobon decoction was reduced and by ten days, the Arobon was withdrawn and the stools were normal in character and frequency.

Case 2.—Baby aged 6 months came under observation with diarrhoea of a three weeks' duration with minimal mucus and no specific pathogens on stool culture. Here again she was started on