

A Study of the Effect of Liv.52 Syrup on Malnourished Children in Rural Area

Syed Fiaz Peeran, B.Sc., M.B.B.S.,
 District Health Officer, Madurai District,
Manivasagam, M., M.B.B.S., D.C.H., Medical Officer,
 Primary Health Centre, Ammayanaickanur, Madurai District
 and
Unnamalai, R., B.Sc., M.B.B.S., Medical Officer,
 Primary Health Centre, Ammayanaickanur, Madurai District, India.

Vast majority of infants and children in rural India suffer from malnutrition. The main dietary defects are a high consumption of cereals with a high proportion of carbohydrates and a deficient intake of protein especially of complete or animal proteins. In addition, it may also be due to inadequate vegetable protein in the diet. The problem of malnutrition is most marked during infancy and early childhood. Since the majority of our population is in the rural areas, where poverty and ignorance abound, incidence of malnutrition is higher.

Keeping the above factors in view, a study of the effect of Liv.52 syrup on malnourished children in rural area was undertaken in January, February and March 1980 at the Primary Health Centre, Ammayanaickanur area, Madurai District.

MATERIALS AND METHODS

The present study of Liv.52 has been carried out in 156 cases of malnourished children, of which 79 children received Liv.52, while 77 children served as a Control group. The selected children belonged to the age group 1-5 years of either sex, with similar dietetic habits and socio-economic status.

A detailed history of each was taken regarding birth order, infectious diseases in the past, dietary habits, socio-economic status of the family and also immunisation status of the children. A thorough examination was done in each case. Weight was recorded before starting the treatment, then once a week up to the end of 3 months of study. Special care was taken to record minor ailments also and these were treated promptly.

The main occupation of the family was agriculture (About 90%) while the other 10% were engaged in other work. Most of the mothers who attended the Balwadi were illiterate. The dietary habit consisted of one to two meals a day mainly of carbohydrate with Sambar or Rasam with meagre vegetables. Eggs, meat and milk were taken very rarely or occasionally.

In all 156 cases were included in the present series of study. They were divided into two groups.

OBSERVATIONS

Age	GROUP I		GROUP II	
	No. of cases	%	No. of cases	%
1-2	16	20.2	22	28.5
2-3	30	38.0	24	31.2
3-4	17	21.5	19	24.7
4-5	16	20.3	12	15.6
Total	79		77	

Sex	GROUP I		GROUP II	
	No. of cases	%	No. of cases	%
Male	28	35.4	28	36.4
Female	51	64.6	49	63.6
Total	79		77	

Table III: Per Capita monthly income of families				
Per capita income	GROUP I		GROUP II	
	No. of cases	%	No. of cases	%
Below 100	12	15.2	11	14.3
100 – 150	29	36.7	21	27.3
150-200	13	16.5	18	23.4
200 and above	25	31.6	27	35.0

Table IV: Showing degree of malnutrition				
Degree of Malnutrition	GROUP I		GROUP II	
	No. of cases	%	No. of cases	%
Grade III	63	79.7	66	85.7
Grade IV	16	20.3	11	14.3

Table V: Showing weight gain after 3 months				
Weight gain	GROUP I		GROUP II	
	No. of cases	%	No. of cases	%
0 - ½ kg	23	29.1	36	46.8
½ - 1 kg	39	49.4	7	9.1
1 - 1½ kg	9	11.4	3	3.9
1½ - 2 kg	3	3.8	—	—
Above 2 kg	3	3.8	—	—
Reduction in weight	2	2.5	No weight gain 31	40.2

Group 1 - 79 Children: (Liv.52 Group)

Liv.52 syrup was given in the dose of 5 ml twice daily for a period of 3 months in addition to routine dietetic therapy.

Group II - 77 Children: (Control Group)

Routine dietetic therapy was given without Liv.52 syrup. This served as a control group. Regular weight recording was done for Groups I and II children. Minor ailments were treated then and there for all children. All the children were followed up for a period of 3 months. At the end of the 3rd month, improvement in symptoms was seen in all cases of Group I, specially in anorexia, and weight gain were noted.

In two cases, the reduction in weight was due to measles. The loss was not significant. Table V shows that there is better weight gain in Group I on Liv.52.

The marked increase in weight up to 2 kg. in 68.4% of children during 3 months of trial is only due to Liv.52 syrup.

Whereas in Group II increase weight occurred only in 13.0% of children, while 40% did not register any weight gain.

CONCLUSION

From the clinical study of the effect of Liv.52 in malnourished children in rural area, it is clear that Liv.52 syrup has a significant role in the anabolism of malnourished children. The mechanism by which it brings about this anabolic effect is still not known. But its anabolic effect is shown by increased appetite and gain in weight. This may be due to its effects on the liver function and protein metabolism. So Liv.52 definitely can be a worthwhile therapy in malnutrition.

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