

Role Of Calcerea Phosphorica- 200 In Cases of Malnutrition (Undernutrition) Between the Age Group 6 Month To 5 Year- A Randomized Sample Study in Rural Area.

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Abstract—Malnutrition is a silent emergency and a major crisis. This situation is more serious because the main victims of malnutrition are children. Various homeopathic research projects have been conducted, but the specific action of a single medicine in cases of malnutrition is unknown. This prospective study was conducted to determine the role of Calc.Phos 200 in cases of malnutrition (undernutrition) between 6 months and 5 years of age by taking 25 cases of all grades of malnutrition from different villages of Karjan taluka in Vadodara district. A survey was conducted in the villages between November 2021 and July 2022. Appropriate dietary and hygiene advice was also provided. Homeopathic Medicine, Calc. Phos 200 showed considerable improvement in the nutritional state of approximately 80% of the children. The study was conducted over a period of six months. A larger sample size with an extended follow-up period would provide a better and clearer understanding.

Index Terms—children, malnutrition, undernutrition, homeopathy, Calc. Phos. 200

I. INTRODUCTION

Malnutrition is a pathological state resulting from a relative or absolute deficiency or excess of one or more nutrients. Malnutrition encompasses two broad groups of conditions: undernutrition and overnutrition; thus, in the present era, malnutrition refers to a double burden of disease. This study reflects the undernutrition. The main victims of malnutrition

are children under the age of 15, but children under the age of 5 are hit the hardest. It is a universal problem and the main cause of death and disease in children worldwide. No country is unaffected by this issue. India is home to one-quarter of the world's undernourished population, and undernourishment is more common in rural areas than in urban areas. Various community nutrition programs are underway in India to combat child nutrition to get on track. Homeopathic researchers have also investigated malnutrition in India. However, most of these studies focused on reducing anemia rather than malnutrition. Homeopathic medicines and therapeutics have been used to improve malnourishment. Remedies like Abrotanum, Alfaalfa, Calc Carb, Calc Phos, Silicea, Lycopodium Tuberculinum etc are mentioned in our material medica for Malnutrition. However, few have attempted to work on this at the mass level because working with a team is required. Second, malnutrition has multiple causes related to socioeconomic factors, geography, education, poverty, and cultural norms. It has come to our notice that malnutrition as a disease is not present in people's minds. Most importantly, it requires the correct health-seeking behavior from the community. Physicians with specialized skills and assistance from social workers are required.

The study with Calc Phos was decided as the carbonate and phosphate of lime are necessary constituents of all the tissues of the body, both hard and soft. Calcium

salts are among the most well-proven medicines in homeopathic materia medica.

II. METHOD OF STUDY

A prospective study was conducted on 25 patients between November 2021 and July 2022. A survey was conducted in the villages, and consent/assent was obtained from the parents or caretakers. They were also educated about diet and hygiene. Children aged 6 months to 5 years were enrolled from different villages in the Karjan Taluka of Vadodara District. The cases were obtained using a standardized case format. Their grades and levels of malnutrition were assessed using an app developed by [Indian Academy of Pediatrics]. Calc. Phos 200 was administered as one dose every week, and monthly follow-ups of the children were performed.

III. INCLUSION CRITERIA -

Pediatric age group (6 months–5 years).
 Case of both sexes.
 Patients with all types of socioeconomic conditions were included.

IV. EXCLUSION CRITERIA -

Patients with known cases of congenital or other major comorbidities (e.g., cerebral palsy, Down syndrome, and mental retardation) were excluded.) Patients who did not attend follow-up after one dose of medicine were excluded.

V. RESULT & OUTCOME CRITERIA

The effect and outcome of homoeopathy medicine CALC.PHOS 200- one dose weekly for 6 months on the cases of malnutrition was noted down on bases of following improvement criteria: -

- 1) Weight – Increase at list 1 kg in 6 months of treatment (500 gm in 3 month)
- 2) Height – Increase at list 3 cm in 6 months of treatment
- 3) MUAC – Stable or not decrease, increase
- 4) Rate of infection – Decrease (At list 50% - than before of starting of treatment)
- 5) Sign of deficiency (Specifically white spot-on nail, face) – Remove or decrease
- 6) Appetite – Improved

7) Milestone: Dentition, seating, standing, walking, closer to fontanel, etc.

8) Grading – Improvement, remain same or not deteriorate

Cases in which improvement was observed in four or more than 4 criteria or improvement in 50% of the criteria in any case should be considered as a favorable outcome, and cases in which improvement was not observed as per these improvement criteria are considered as an unfavorable outcome after administering CALC.PHOS 200 to malnourished children.

Table 1: Distribution of cases according to gender

Total no of male patient	Total no of female patient
14	11

Table 2: Distribution of cases according to age group

Age group	Total no of patient	Total female patient	Total male patient
6 months to 1 year	5	2	3
1 to 2 years	6	1	5
2 to 3 years	7	4	3
3 to 4 years	6	4	2
4 to 5 years	1		1

Table 3: Grade wise distribution of cases

Grade of malnutrition	Total no of patient	Total male patient	Total female patient
Red	11	7	4
Yellow	13	6	7
Green	1	1	

Table 4: out come after treatment

Favorable	Unfavorable
20	5

Table 5: Grade wise out come in cases after treatment

Grade of malnutriti on	Outcome	Total no of patient	Male patient	Femal e patient
Red	Favorable	9	5	4
	Unfavorable	2	2	
Yellow	Favorable	10	5	5
	Unfavorable	3	1	2
Green	Favorable	1	1	
	Unfavorable			

Table 6: Overall improvement

Presenting complain	Total Number of Patient out of 25 patients	Improvement in total number of patients
Low weight	25	22
Low height	25	12
Recurrent acute complain	18	14
Sign of deficiency	7	6

Table 7: Identifiable causes of malnutrition

Single cause of malnutrition	More than one cause of malnutrition
9	16

Table 8: Acute and intercurrent medicine was given during treatment

Table 9: Grade wise change in progress after treatment

Grade of malnutrition	Wt increase & improvement in Grade	S. Q	Wt increase but no change in grade	Wt increase & deterioration in grade
Red	2		9	
Yellow		1	11	1
Green				1

Table 10: total month of gap during treatment

Regular	1 month gap	2-month gap	3-month gap	More than 4 months of gap
6	6	7	4	2

A total of 25 patients were included in this study, of whom 14 were male and 11 were female; thus, the prevalence and ratio of male patients were higher than those of female patients. Malnutrition is more prevalent in the age group of 1–4 years. More children suffered from moderate malnutrition (yellow grade) than from severe malnutrition (red grade). After administering Calc.Phos 200 in the 1st month, 200 to 300 g of weight was gained, and once weight gain was started, a minimum weight of 100 to 300 g was gained. The height was increased by 1 cm every month during the treatment period. However, weight and height were S. Q. if the child had any acute illness in that month. Outcomes were more favorable in children in

the red and yellow zones and those who received regular treatment. The two children were upgraded from red to yellow status. Only two children’s weights increased, but a deterioration in the grade of malnutrition was observed. The weights of the other 21 children increased, but their grades remained the same after treatment. Favorable outcomes were observed in 80% of the cases. During treatment, 18 of the 25 patients complained of recurrent colds, coughs, and diarrhea. Only in 7 patients acute medicine was administered in only seven patients; otherwise, all other children with acute complaints were managed only with Calc. Phos 200. The improvement in recurrent acute infection, which is a contributing factor of malnutrition, was addressed by Calc Phos 200. This suggests that Calc.Phos 200 can modify susceptibility and reduce the load of recurrent acute infections. Therefore, the vicious cycle of malnutrition and infection was interrupted. In four patients, Tuberculinum was administered as an intercurrent medicine because there was no change in weight. However, no improvement was observed in three patients after Tuberculinum administration. This also suggests that the use of Tuberculinum as an intercurrent drug has a minimal role.

VI. CONCLUSION

A study has shown that Calc Phos improved anthropometric measurements in 80% of the children. Their susceptibility to recurrent infections has also improved. These are signs of medicine registration.

VII. LIMITATION AND RECOMMENDATIONS –

- The number of patients included in the study was very small.
- No control group was included in the study.
- Data obtained during case taking were very low because of lack of awareness regarding malnutrition and lack of observation of parents and family members towards their children.
- The community where the study was conducted mostly consisted of landless laborers living below the poverty line. Therefore, their availability was irregular in the study. Their neighbors or relatives used it to bring children for checkups. Occasionally, there are gaps in regular follow-ups.

- Due to poverty and lack of education, dietary advice was followed less frequently. An affordable diet was prescribed, and the consumption of Balbhog provided by the government was encouraged. Secodly, their belief system for certain food was also a major hindrance. [e.g Banana produces cough, egg & jiggery are hot (garam pade) etc]

VIII. RECOMMENDATION-

- A larger sample size with an extended time frame would provide a better and clearer understanding.
- It will always be scientific if the control group is kept simultaneously to verify the effectiveness of the treatment.
- More programs are needed to raise parents' awareness of the importance of a proper diet and the negative effects of poor nutrition on their children.

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