

[Feeding Disorder in Newborn]

GRAND ROUNDS
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A nine day old infant entered the hospital because of convulsions since the age of 3 days when evaporated milk feedings were substituted for breast feedings. These convulsions, occurring many times a day, were accompanied by cyanosis and inspiratory obstructive dyspnea.

The family history was irrelevant. The pregnancy, delivery and immediate neonatal condition of the infant were within normal limits.

Physical examination at nine days of age revealed a well developed, 8 lb. 12 oz., afebrile infant who was alert and in good general condition. There was a generalized increase in muscle tone. From time to time clonic movements of the left arm, twitching of both sides of the face, turning of the head to the left and nystagmus with the quick component to that side were noted. Occasionally there were also clonic movements of the right arm and leg. No trismus was present.

The first hospital day the infant had numerous convulsions. Routine laboratory work, C.S. Fl. and blood cultures were within normal limits. Calcium gluconate I.V. was without appreciable effect.

The infant was placed on Human milk with added calcium chloride, and on the second hospital day parathyroid hormone was given with relief of convulsions for six days. From the 8th to the 15th days AT-10 therapy was employed with relief of symptoms. By the 17th day the infant was more relaxed, could take nipple feedings for the first time since admission.

For the remainder of the 40 hospital days the infant did well without specific treatment and was gradually changed to a stock E.M. - Water - CHO feeding mixture, Vitamins C and D in usual quantities.

Laboratory Data

Hospital Day	Therapy	Ca	PO ₄	Prot.	NPN
1 d.	0	4.2	9.5	6.1	33
4 d.	Parathyroid	11.0	6.4		
8 d.	0	6.0			
15 d.	AT-10	10.6	4.2		30
33 d.	0	10.2	5.5		

References

1. Bone and Metabolic Diseases of Bone - Combined Staff Clinic. *Am. J. Med.* 15:99, 1953.
(Good review of current knowledge and areas of ignorance concerning calcium metabolism).
2. Bakwin, H.: Pathogenesis of tetany of the Newborn, *Am. J. Dis. Child.* 54:1211, 1937.
3. Snelling, C. E.: Disturbed kidney function in the newborn infant associated with decreased calcium: phosphorus ratio. *J. Pediat.* 22:559, 1943
4. Gardner, L. I., et al.: Etiologic factors in tetany of newly born infants. *Ped.* 5:228, 1950. Also *J.C.I.* 29:1448, 1950.
5. McCrory, W. W., et al. Renal excretion of phosphate in newborn infants. *J.C.I.* 31:357, 1952.
6. McCance, R. A. et al: Tissue destruction and renal function in the first two days of life. *Arch. Dis. Childhood* 29:495, 1954.
7. Pratt, E. L.: Dietary Prescription of Water, Sodium, Potassium, Calcium and Phosphorus for Infants and Children. *Am. J. Cl. Nutr.* 5:555, Sept-Oct. 1957.