

## **Short-term consequences of oral protein powder feeding in premature infants**

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## **Abstract**

In this retrospective and case-control study, we reviewed the results of administering oral protein powder to enteral milk feeding of preterm infants weighing  $\leq 1200$  gr by medical records. Thirty-four infants (with parental consent) received oral protein powder with a daily dose of one-gram sachet (made by the Dutch company Nutricia) in the expressed breast milk as the case group and 64 matched infants at the same time period who had received the same care other than receiving oral protein powder as the control group. Protein powder was started when milk volume reached to 70 ml / kg / day. The mean weight gains at 5, 10 and 15 days after starting protein and the duration of hospitalization after starting protein in the case group was compared with the same time in the control group. The mean weight gains in the first 5 and 10 days in the case group were 46.16% and 13.16% higher than the control group respectively, but not significant statistically ( $P > 0.05$ ). The mean weight gain in the first 15 days in the case and control groups was  $209.35 \pm 115.58$  and  $169.85 \pm 68.9$  g, respectively. The case group showed 23.25% higher weight gain compared to the control group ( $P = 0.033$ ). The duration of hospitalization in case and control groups was  $35.93 \pm 10.25$  and  $41.08 \pm 11.32$  days, respectively ( $P = 0.039$ ). Necrotizing entero-colitis, vomiting and oral intolerance were not observed in any of the neonates fed the protein powder supplement. Thus a diet enriched with protein before the full enteral feeding can increase weight gain and also reduce the length of hospital stay of very low birth weight infants.

## **Biography**

Zahra Akbarian-rad has completed her specialty in neonatology at the age 37 years from Babol University of Medical science, Iran. She has over 45 publications and her h-index is 5. She has been teaching medical students and work in neonatal intensive care unit of a referral high risk pregnancy hospital in Babol, Iran since 2010.

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