

“The purpose of the study was to determine the utility of serum ALP in the diagnostic criteria for PNALD by measuring tissue-specific levels in infants with IF and PNALD.” Nandivada et al (2014).

Reference:

Nandivada, P., Potemkin, A.K., Carlson, S.J., Chang, M.I., Cowan, E., O’Loughlin, A.A., Gura, K.M. and Puder, M. (2014) Elevated Alkaline Phosphatase in Infants With Parenteral Nutrition–Associated Liver Disease Reflects Bone Rather Than Liver Disease. Journal of Parenteral and Enteral Nutrition. August 8th. .

Elevated alkaline phosphatase in infants with parenteral nutrition [#ivteam](http://ctt.ec/M58Rk+@ivteam)

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Abstract:

Background: Elevated serum alkaline phosphatase (ALP) in infants with intestinal failure (IF) can be due to parenteral nutrition–associated liver disease (PNALD) or metabolic bone disease (MBD). The purpose of the study was to determine the utility of serum ALP in the diagnostic criteria for PNALD by measuring tissue-specific levels in infants with IF and PNALD.

Methods: A retrospective review of patient data for 15 infants diagnosed with PNALD between December 2012 and August 2013 was performed. PNALD was defined as the presence of 2 consecutive direct bilirubin (DB) levels >2 mg/dL. Fractionated serum alkaline phosphatase was measured in each patient, while the DB was >2 mg/dL. Parathyroid hormone (PTH), vitamin D3, calcium, and phosphate levels were recorded where available.

Results: In 15 infants with PNALD, elevation in total ALP was due to marked elevations in bone-specific ALP. The median liver-specific ALP remained within the normal range. PTH, vitamin D3, calcium, and phosphate levels were within normal limits.

Conclusion: While elevated ALP can reflect biliary stasis, the ALP elevation observed in infants with IF and PNALD is predominantly of bone rather than hepatic origin. An elevated unfractionated ALP in infants with PNALD should therefore raise suspicion of underlying bone disease, rather than being attributed to liver disease alone.

Other intravenous and vascular access resources that may be of interest (External links - IVTEAM has no responsibility for content).

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href="http://www.macmillan.org.uk/Cancerinformation/Cancertreatment/Treatmenttypes/C
hemotherapy/Beingtreated/Havingchemotherapy/Intravenous.aspx">Guide for intravenous
chemotherapy and associated vascular access devices from Macmillan.

<a style="line-height: 1.5em;"

href="http://www.cancerresearchuk.org/cancer-help/about-cancer/treatment/chemotherapy/
having/iv-chemotherapy">CancerUK IV chemotherapy information.

<a

href="http://feedburner.google.com/fb/a/mailverify?uri=Ivteam&loc=en_US"
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