P49 TRANSIENT HYPERPHOSPHATASEMIA OF INFANCY AND EARLY CHILDHOOD – ANALYSIS OF PUBLISHED REPORTS

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Kutilek S.

Center for Clinical and Basic Research – CCBR and Dept of Paediatrics, Pardubice, Czech Republic

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Transient hyperphosphatasemia of infancy and early childhood (THI) is characterized by transiently increased serum activity of alkaline phosphatase (S-ALP), predominantly its bone or liver isoform, in children under 5 years of age. There are no signs of metabolic bone disease or hepatopathy corresponding with the increased S-ALP, nor there is a disease common to all children with THI. The THI criteria include:
1) an age of less than 5 years;
2) variable, unrelated symptoms;
3) no bone or liver disease in relation to increased serum alkaline phosphatase activity

(S-ALP);
4) isoenzyme and isoform ALP analysis showing elevations in both bone and liver activity;
5) return to normal S-ALP values within four months.
So far, 126 papers regarding > 500 patients with THI have been published. According to the principles of evidence based medicine, clinical trials provide the strongest evidence when it comes to evaluation of diagnostic accuracy or treatment efficacy. However, in case of rather infrequently encountered and incidentally detected condition, such as THI, large and systematic studies are extremely difficult to perform. Prevalent source of information on THI comes from case reports or observational reports involving either individual patients or small cohorts of patients. Conclusions from such reports can be subject to potential source of bias, due to the low patient numbers and the absence of a standard protocol with uniform diagnostic criteria. Therefore, the weakest evidence may come from unsystematic isolated clinical observations and generalisations from such brief reports where methodological problems exist. We assume that a systematic review of the evidence using specific evaluation criteria may be helpful. In this presentation we attempted to analyse and consequently summarize published data on THI. In general, THI is a benign condition, predominantly occurring before 2 years of age and is probably having no consequences in later years.