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Effects of antiepileptic drugs on bone mineral density and bone metabolism in children: a meta-analysis

Key words: Antiepileptic drugs, Bone mineral density, Bone metabolism, Children, Meta-analysis

Research Summary

- The aim of this meta-analysis was to assess the effects of antiepileptic drugs on bone mineral density and bone metabolism in ***epileptic children***.
- We identified:
 - a reduction in bone mineral density at ***lumbar spine*** ;
 - a reduction in ***25-hydroxyvitamin D*** and an increase in ***serum alkaline phosphatase***;
 - no significant changes in ***serum parathyroid hormone, calcium or phosphorus***.

Innovation points

A series of comprehensive figures were generated to summarize the effect of AED treatment.

Figure 2 | Meta-analysis of datasets involving AED treatment and BMD of lumbar spine.

Figure 3 | Meta-analysis of datasets involving AED treatment and 25-hydroxyvitamin D.

Figure 4 | Meta-analysis of datasets involving AED treatment and BMD of serum ALP.