Vitamin D in Paediatric Inflammatory Bowel Disease

Recommendations:

1. Vitamin D should be monitored at least 6 monthly in all children with IBD.
2. Vitamin D supplementation should be given if serum vitamin D <50 nmol/L.
3. Neither optimal dose, nor weight/age-based dose, nor optimal route, are established.
4. Orally at least 60,000 IU weekly (in divided doses) is probably required on an on-going basis. Follow local policies on specific preparations.
5. A single high oral dose (eg 800,000 IU for >12yr old) may effectively maintain vitamin D levels for 6 months.
6. Colecalciferol may be better absorbed than ergocalciferol in IBD.
7. Intramuscular route may be preferred if malabsorption or adherence problems. Dose 300,000 IU for older children. May need to be repeated monthly.
8. Vitamin D should be given without calcium, unless there is a specific indication for calcium (eg dietary dairy exclusion, glucocorticoid therapy). Basic dietary history should be taken.
9. In children treated with glucocorticoids for >3 months:
a. Optimise calcium intake (1,000 mg/day) and vitamin D intake (600 IU/day starting dose, if vitamin D levels sufficient, or not yet known);

b. Promote lifestyle modifications (balanced diet, maintaining weight in recommended range, regular weight-bearing exercise).

Practice Points:

1. IBD is associated with lower vitamin D levels.

2. Evidence that vitamin D deficiency either causes IBD or worsens disease course is circumstantial only (from animal/cell line studies and epidemiological observations).

3. Oral vitamin D supplementation may lead to more rapid increase in levels than intramuscular, but intramuscular supplementation may lead to a more sustained response.

4. Association of low vitamin D levels with northern latitudes and winter season are extensively documented.

5. General population advice is direct sun exposure to face and arms without sunscreen for 10-15 min twice/week. There is no specific recommendation in relation to sun exposure for those taking thiopurines.

6. Steroid therapy:

   (a) Increases the risk of osteoporosis and fractures and affects bone strength, growth and final adult skeletal mass.

   (b) Is associated with low vitamin D.

   (c) Highest rate of bone loss occurs in first 3-6 months of therapy.

   (d) Both high daily dose, and cumulative use, increase the risk of fracture.
(e) Effects are reversible once steroid therapy is stopped.

Jenny Epstein on behalf of BSPGHAN IBD WG

References


This document is produced by the IBD working group of BSPGHAN for the use of BSPGHAN members. This is not a guideline. Produced in December 2019 Review Date December 2022


