Dupilumab Increases Levels of Bone Growth Biomarker Irrespective of Prior Use of Systemic Corticosteroids in Children With Moderate-to-Severe Atopic Dermatitis

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Background
- Children with moderate-to-severe AD are at increased risk of lower bone mineral density and fractures
- Peak bone mass achieved during prepubescence is a major determinant of lifetime risk of fractures and osteoporosis
- Bone Alkaline Phosphatase (BALP) promotes bone mineralization and contributes to density and linear growth in children
- Systemic Corticosteroids (SCS) can negatively impact growth and bone health

Methods
- BALP levels in sera from participants receiving dupilumab 300 mg q4w or placebo in LIBERTY AD PEDS (NCT03345914) and dupilumab 300 mg q4w in LIBERTY AD PED-OLE (NCT02612454) were analyzed at baseline and at 8, 12, 16 (PEDS), and 52 weeks (PED-OLE)
- Serum BALP levels (mcg/L) were stratified by prior use (with SCS; n = 42) or with no prior use of SCS (without SCS; n = 203), as captured in PEDS patient history at baseline

Results
- Dupilumab treatment increased BALP levels in children aged 6 to 11 years with moderate-to-severe AD irrespective of prior history of SCS use
- These results add to the body of evidence that moderate-to-severe AD can negatively impact BALP levels, and that this effect may be improved with dupilumab in this age group, regardless of history of SCS use
- The increase in BALP levels suggests that dupilumab may help improve bone mineralization in children with moderate-to-severe AD when treated during prepubescence

Objective
- To describe the impact of dupilumab treatment on BALP in children aged 6 to 11 years with moderate-to-severe AD and prior history of SCS use

Conclusions
- Dupilumab treatment increased BALP levels in children aged 6 to 11 years with moderate-to-severe AD irrespective of prior history of SCS use
- These results add to the body of evidence that moderate-to-severe AD can negatively impact BALP levels, and that this effect may be improved with dupilumab in this age group, regardless of history of SCS use
- The increase in BALP levels suggests that dupilumab may help improve bone mineralization in children with moderate-to-severe AD when treated during prepubescence

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