Cinacalcet Treatment in an Adolescent With Hypocalciuric Hypercalcemia

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Introduction

- Familial hypocalciuric hypercalcemia (FHH) is a genetically heterogeneous condition resembling primary hyperparathyroidism but not curable by surgery.
- Cinacalcet may improve symptoms in some patients but limited experience, especially in children.

Case

- A 10 years old child evaluated by uveitis, sacroileitis, spondyloarthritis and diagnosed as HLA-B27 positive juvenile idiopathic arthritis (JIA).
- Also at the same time he evaluated by high calcium, low phosphate and inappropriately high PTH level and hypocalciuria. Therefore he diagnosed as hypocalciuric hypercalcemia.
- He screened for calcium sensing receptor (CASR) mutations with negative results. Further genetic analyses will plan for other reasons of FHH. His JIA and associated symptoms resolved after anti-inflammatory therapy, but his hypercalcemia and associated symptoms persisted; also osteoporosis was detected on dual-energy X-ray absorptiometry.
- As a result of symptomatic hypercalcemia, the patient was treated with a calcimimetic (cinacalcet). During the treatment, plasma calcium and PTH level decreased.

<table>
<thead>
<tr>
<th></th>
<th>Before treatment</th>
<th>1 month of treatment</th>
<th>3 month of treatment</th>
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</thead>
<tbody>
<tr>
<td>Calcium (mg/dl)</td>
<td>11.7</td>
<td>9.8</td>
<td>10.6</td>
</tr>
<tr>
<td>Phosphorus (mg/dl)</td>
<td>3.9</td>
<td>4.4</td>
<td>4.1</td>
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<tr>
<td>PTH (pg/ml) (10-68)</td>
<td>189.8</td>
<td>116</td>
<td>110</td>
</tr>
</tbody>
</table>

Conclusion

- Cinacalcet treatment was well tolerated without significant side effects.
- Cinacalcet therapy may be a useful option for control hypercalcemia and related symptoms at least short term in children.