INTRODUCTION

• Chronic hypoparathyroidism (cHP) is a rare disorder, characterized by low serum calcium and low endogenous parathyroid hormone (PTH).

• Few studies to date have characterized patients with cHP.

• One study in the US has utilized claims data to assess the incidence and prevalence of cHP, however, patient characteristics and outcomes of cHP were not assessed (Powers et al., JBRM 2013).

• Study Objective: To assess the clinical burden and practice patterns in patients with cHP identified using diagnosis-based criteria in a US claims database.

METHODS

• Study Design: Non-interventional retrospective claims data analysis

• Data Source: HealthVerity closed payer claim medical and pharmacy database (Private Source 2) with 130 million covered lives.

• Study Period: October 1, 2014 - December 31, 2019

• Study Population: Patients identified with cHP using a diagnosis-based approach. Eligibility criteria (Figure 1) were adapted from a study by Powers et al.:

  - Presence of 22 claims with diagnosis of HP 6-15 months apart (International Classification of Diseases, ICD 9/10 codes: E29.0, E29.8, E29.0, 252.1) and a prescription claim for either active vitamin D, calcium, PTH, or thyroid replacement therapy between the first qualifying HP claim and within 30 days of the second HP claim.

  - Index Date: Date of the first of two qualifying HP diagnosis claims

• Patients continuously enrolled for a year before the index date and a minimum of 16 months after the index date

RESULTS

Figure 1. Eligibility Criteria

<table>
<thead>
<tr>
<th>Description</th>
<th>HPV claim</th>
<th>Index Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic parathyroid hormone (cPTH)</td>
<td>≥6,367 patients</td>
<td>within 30 days of 2 HPV claims</td>
</tr>
</tbody>
</table>

Table 1. Baseline Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N=6,837</th>
<th>N=41,085</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean (Standard Deviation)</td>
<td>64.8 (14.9)</td>
<td>61.5 (14.9)</td>
</tr>
<tr>
<td>Laboratory and Procedure Utilization (ICD9/10 Procedure Codes, Healthcare Common Procedure Coding System (HCPCS) or Common Procedural Technology (CPT))</td>
<td>41-50</td>
<td>51-60</td>
</tr>
<tr>
<td>Charlson Co-morbidity Index, Mean (Standard Deviation)</td>
<td>2.16 (2.5)</td>
<td>2.16 (2.5)</td>
</tr>
<tr>
<td>Calcium, mean (Standard Deviation)</td>
<td>11.4 (3.1)</td>
<td>11.4 (3.1)</td>
</tr>
<tr>
<td>Parathyroid hormone, mean (Standard Deviation)</td>
<td>0.0 (0.0)</td>
<td>0.0 (0.0)</td>
</tr>
</tbody>
</table>

CONCLUSION

• This study employed a large US claims database with a sizable number of HP claims and used rigorous inclusion and exclusion criteria to identify a cHP population.

• Findings provide insights on a cohort of patients of cHP that were identified using a diagnosis-based approach, of which, most patients seem to be prevalent cases. The demographics of the patient population were consistent with literature.

• These data highlight the substantial morbidity burden in this patient population that aligned with the monitoring patterns.

• Kidney health appears to be a significant concern in this patient population and could be considered a key target organ for monitoring and therapeutic intervention.

• Future studies can compare the findings with a control group and examine the healthcare resource utilization and costs associated with the disease and its complications.

DISCLOSURES

Study was funded by Amity Pharma, PLC. MD, MA and BW are current employees of Amity Pharma. US and K2G are employees of DHI Inc., which received payment from Amity Pharma associated with the development and execution of this study. DMM and MWS were scientific advisors on this study, and they received an honorarium from Amity Pharma. Poster presented at ENDO 2011, March 20-23 (Virtual).