The Implications of Using Monoclonal Antibodies for Ulcerative Colitis in Adult Patients with Diabetes: A Scoping Review

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Background

• Ulcerative colitis (UC), a chronic inflammatory bowel disease (IBD) affecting the colon, is shown to have an increasing comorbidity with diabetes mellitus (DM)

• UC is often treated with corticosteroids and immunosuppressive agents, including monoclonal antibodies/biologics

• There is limited literature on the implications of using monoclonal antibodies for UC in adults with DM

• When considering management (e.g., medications, lifestyle, diet), it is imperative to understand how monoclonal antibodies specifically affect patients with UC and DM to optimize treatment and reduce complications

Objectives

• To investigate the implications of using monoclonal antibodies for UC in adults with DM

Results

Table #1: Summary of results

<table>
<thead>
<tr>
<th>No. of Articles</th>
<th>Summary</th>
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<tbody>
<tr>
<td>4</td>
<td>Highlight the lack of information available to draw conclusions regarding biologic use in IB + DM related to drug induced autoimmunity, comparing infection risks, outcomes, and risk of developing DM.</td>
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<tr>
<td>2</td>
<td>Present an increased risk of infection with IB + DM that is not significantly affected with use of biologic treatments. One reporting for IB + DM using immunomodulators, risk of infection is independently associated with corticosteroid use</td>
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<td>5</td>
<td>Support a negative interplay in disease activity/severity and/or complications between concomitant UC and DM</td>
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<tr>
<td>5</td>
<td>Establish an increased risk of DM in IB; 2 of the 5 articles additionally establish this risk in UC alone, for both Type 1 and Type 2 DM</td>
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• IBD + DM is associated with significantly higher health care utilization, including IBD-related hospitalizations and gastrointestinal clinic visits compared to IBD alone; however, this utilization in IBD + DM patients receiving biologic treatment was not significantly different compared to IBD + DM without biologic treatment

• UC + DM is associated with increased measures of UC activity, inflammation, and worse quality of life compared to UC alone; however, no significant difference in the use of biologics compared to UC/IBD alone

Conclusion

• UC/IBD + DM shows increased health care utilization and worsened disease than UC/IBD alone, but no significant difference in use of monoclonal antibody treatment

• IBD + DM carries an increased risk of infection that is not proven to be significantly altered with the use of monoclonal antibody medications

• There is a clear and documented gap in research on monoclonal antibody treatment in this population

• Given the above findings, further investigation of this topic is warranted to establish the implications of monoclonal antibody use in UC + DM and potentially reduce negative outcomes

References

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