Reduction of Topical Steroid Dose Improves Adrenal Function Without Worsening EoE Control

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AIMS
- Determine total adrenal dose dependence on likelihood for adrenal insufficiency (AI) diagnosis
- Assess other factors associated with AI diagnosis

BACKGROUND
- Eosinophilic Esophagitis (EoE) is a chronic, inflammatory condition of the esophagus often treated with swallowed topical steroids (STS)
- Adverse drug reactions to STS include thrush, candidal esophagitis, and adrenal insufficiency (AI)
- Wide ranging incidence of AI has been reported in the STS-treated EoE population from 5-66%
- Factors that increase the likelihood of AI development are unclear

METHODS
- Retrospective case-control study
- 32 STS-treated EoE patients with AI diagnosis
- 81 STS-treated EoE controls
- Demographic, clinical, endoscopic, and histologic data abstracted from the electronic medical record
- All topical steroid dosages converted to fluticasone equivalent dose with dose required for 20% adrenal suppression

RESULTS

<table>
<thead>
<tr>
<th>Topical steroid</th>
<th>20% adrenal suppressive dose</th>
<th>Relative fluticasone proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluticasone</td>
<td>900</td>
<td>Reference</td>
</tr>
<tr>
<td>Budesonide</td>
<td>1200</td>
<td>1.5</td>
</tr>
<tr>
<td>Beclomethasone</td>
<td>390</td>
<td>2.31</td>
</tr>
<tr>
<td>Ciclesonide</td>
<td>600</td>
<td>1.5</td>
</tr>
<tr>
<td>Mometasone</td>
<td>660</td>
<td>1.36</td>
</tr>
</tbody>
</table>

- Entocort treatment for concomitant EsG, EoGE, and EoC
- p-values: AI cases on STS vs controls

CONCLUSIONS
- Adrenal function can recover in this population when STS dose is decreased without discontinuation of STS altogether
- Entocort contributes a differentially elevated steroid burden and may be an independent risk factor for AI
- No significant increase in peak eosinophils/HPF when steroid dose decreased for adrenal recovery

IMPLICATIONS
- Effort should be made to move toward lowest effective dose for all topical steroid formulations
- Cortisol testing of all EoE patients on STS should be considered given ability to reverse AI

REFERENCES

Authors have no relevant disclosures to report.