Symptomatic Uncomplicated Diverticular Disease: Evaluation of Mesalazine and/or Probiotics Treatment in Fecal Calprotectin

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Recent observations suggest that symptomatic uncomplicated diverticular disease (SUDD) is related to changes in colon microflora and mild inflammation.

- Fecal calprotectin (FC) is a protein related to intestinal inflammation.
- The use of mesalazine can improve symptoms and reduce the FC levels to normal levels in many patients but in some cases, these levels remain high.
- The persistence of FC in altered levels is related to complications of diverticular disease.
- The management of these patients is still unknown.
AIMS

• To evaluate the effects of mesalazine and/or probiotics in FC levels in patients with SUDD
Methods

• 163 patients with SUDD and FC > 150 microg / gr were selected after colonoscopy and CT.
• Were excluded patients younger than 18 years, with G.I. cancer or polyps, inflammatory bowel disease, gastroenteritis, anal or rectal active diseases, previous intestinal surgery, and use of anti-inflammatory drugs.
• Patients received mesalazine 800mg b.i.d. for 60 days and made new dosage FC.
• 115 patients presented FC < 150 microgr / g and 48 FC > 150 microgr / g
Methods

• 48 patients that presented CF > 150 microgr / g were randomized into 3 groups:
  
  1) MP group: 16 patients using mesalazine 800mg bid and a mix of probiotics (L. acidophilus, L.casei, L. lactis, B. lactis, B. bifidum) bid for 8 days;
  
  2) M3 group: 16 patients with mesalazine 800 mg tid for 8 days.
  
  3) Group P: 16 patients using mix of probiotics (L. acidophilus, L.casei, L. lactis, B. lactis, B. bifidum) bid for eight days; After treatment, all of them made new FC dosage
Results

Graphic 1: Number of patients (%) with FC levels < or > 150 after 60 days of treatment with mesalazine 800 mg b.i.d. in SUDD patients

- FC < 150: 115 (71%)
- FC > 150: 48 (29%)
Results

Patients Demographic Data

<table>
<thead>
<tr>
<th>Group</th>
<th>Male</th>
<th>Female</th>
<th>Age (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mp Group*</td>
<td>3</td>
<td>12</td>
<td>69y</td>
</tr>
<tr>
<td>M3 Group*</td>
<td>4</td>
<td>11</td>
<td>70y</td>
</tr>
<tr>
<td>P Group*</td>
<td>3</td>
<td>12</td>
<td>67y</td>
</tr>
</tbody>
</table>

*One patient in each group was excluded by protocol deviation*
Results

Graphic 2: Fc levels in MP group before and after mesalazine 800mg b.i.d and a mix of probiotics (L. acidophilus, L. casei, L. lactis, B. lactis, B. bifidum) b.i.d for 8 days.

Fc levels before and after Mesalazine and Probiotics

- Before: 309
- After: 150

p < 0.01
Results

Graphic 3: Fe levels in M3 group before and after mesalazine 800mg t.i.d for 8 days

Before: 455
After: 261

p < 0.02
Results

Graphic 4: Fc levels in P group before and after a mix of probiotics (L. acidophilus, L. casei, L. lactis, B. lactis, B. bifidum) b.i.d for 8 days

FC before and after probiotics (L. acidophilus, L. casei, L. lactis, B. lactis, B. bifidum)

Before: 537
After: 284

p = 0.08
Conclusion

Fc levels reduced for a normal range in most patients (71%) after mesalazine 800mg b.i.d for 60 days.

Combine use of mesalazine and probiotics (L. acidophilus, L. casei, L. lactis, B. lactis, B. bifidum) or increase mesalazine to 2.4g is useful for patients that didn’t reduce FC levels after mesalazine 1.6 g.

It suggest a sinergistec effect of mesalazine and probiotics and a dose dependent effect of mesalazine in intestinal inflammation of SUDD patients.
Thank you