**Table 1—Pulmonary Function Exercise Testing**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Normal</th>
<th>AT</th>
<th>MAX</th>
<th>AT</th>
<th>MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lactic acid, mmol/L</td>
<td>0.5–2.2</td>
<td>1.6</td>
<td>10.3</td>
<td>0.7</td>
<td>6.6</td>
</tr>
<tr>
<td>VO2, mL/min</td>
<td>1.844</td>
<td>1.087</td>
<td>1.571</td>
<td>1.311</td>
<td>2.183</td>
</tr>
<tr>
<td>VO2, mL/kg/min</td>
<td>18.5</td>
<td>10.9</td>
<td>15.8</td>
<td>13.2</td>
<td>21.9</td>
</tr>
<tr>
<td>Heart rate, beats/min</td>
<td>117</td>
<td>135</td>
<td>113</td>
<td>134</td>
<td></td>
</tr>
<tr>
<td>Minute ventilation, L/min</td>
<td>101</td>
<td>31</td>
<td>66</td>
<td>29</td>
<td>55</td>
</tr>
<tr>
<td>METs</td>
<td>5.3</td>
<td>3.1</td>
<td>4.5</td>
<td>3.8</td>
<td>6.3</td>
</tr>
</tbody>
</table>

*AT = anaerobic threshold; MAX = maximal oxygen consumption.

perform some household chores. In addition, the hair that had previously disappeared from her extremities (thought to be secondary to either the autoimmune disease or medication side effect) has regrown. Prior to oxygen therapy, her soft tissues in the extremities were painful with a boggy firmness, a fibromyalgia-like finding also thought to be part of the autoimmune syndrome. This symptom has gradually, but significantly, improved through a combination of body work (osteopathy and massage) and oxygen therapy. Prior to receiving supplemental oxygen, the same type of body work had been only minimally effective.

Researchers have reported exercise intolerance and pulmonary function in patients with mitochondrial dysfunction. Reports of aerobic training have documented increased oxidative capacity in patients with mitochondrial myopathies. One aerobic study suggested that the cellular basis of improved oxygen utilization is related to training-induced mitochondrial proliferation. However, in this same study, genetic analysis indicated a trend toward preferential proliferation of mutant genes relative to wild-type mitochondrial DNA. These investigators raise concerns about the long-term benefits of aerobic conditioning in these patients. Previous reports of aerobic training have not described any trials of therapeutic benefits of aerobic conditioning in these patients.7

To the Editor:

During my pulmonary practice, I encountered a patient who had asthma and nontropical sprue. I prescribed treatment with montelukast for this patient. To my surprise, the patient called me 1 week later to report that her sprue was completely better and that, 1 week after stopping her special gluten-free diet while remaining on montelukast, she was diarrhea free for the first time in 30 years! Her asthma also improved markedly. Taking my observation one step further, I initiated montelukast in another patient with sprue and with COPD without bronchospasm. To my amazement, her sprue also improved markedly, such that she was without diarrhea for the first time in 25 years and also on a normal diet.

Montelukast is an active leukotriene receptor antagonist that inhibits the cysteinyl leukotriene receptor. This may certainly explain the very positive effects of montelukast on patients who have sprue. It is also important to note that, in a recent study, 20% of patients labeled with irritable bowel syndrome really had an incomplete case of sprue. I believe that many of these patients may also benefit from treatment with montelukast.

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**REFERENCES**


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**Irritable Bowel Syndrome Helped by Montelukast**

Irritable Bowel Syndrome Helped by Montelukast

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**REFERENCES**


**Pulmonary Involvement in Hepatitis B-Related Polyarteritis Nodosas**

To the Editor:

We read with interest the report by Guo et al (July 2001) of a patient with hepatitis B-related polyarteritis nodosa (PAN) complicated by pulmonary hemorrhage. Pulmonary involvement, which is rare in patients with PAN, seems to be more frequent in patients with hepatitis B-related PAN, and endothelial cell damage by immune complex deposition could play a role.