Ulcerative Colitis: Experience at a Tertiary Care Center

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ABSTRACT

Objective: Ulcerative colitis has a world-wide distribution but its prevalence and clinical patterns in Pakistan are not known. This study was performed to ascertain the clinical patterns of ulcerative colitis in patients referred to a tertiary care center.

Methods: All patients presenting with diarrhea, blood in stools and biopsy proven for ulcerative colitis were prospectively followed for clinical features, laboratory findings, endoscopic features and treatment response over the study period.

Results: A total of 85 patients were seen and followed for up to 8 years. All had diarrhea with blood in stools. All had numerous white blood cells in stool. Erythrocyte sedimentation rate was elevated in 94 % of patients. More than half had mild disease and distal colitis. All patients responded well to standard treatment with anti-inflammatory drugs.
**Conclusion:** Most patients of ulcerative colitis were mild in severity and had distal involvement. Clinical features in this cohort were similar to patients in most other parts of world. All responded to standard treatment. (Rawal Med J 2005; 30: )

**Key Words:** Ulcerative colitis, Inflammatory Bowel Disease, Flexible Sigmoidoscopy, Colonoscopy, Mesalazine, 5 ASA

**INTRODUCTION**

Inflammatory bowel disease is a common disorder of unknown etiology with worldwide distribution. Ulcerative colitis and inflammatory bowel disease has been noted in the sub continent for past many years. In Pakistan, ulcerative colitis has been noted in various parts of the country including Karachi, Multan, Lahore and Peshawar. The disease typically presents with loose motions associated with blood and mucus. There are often systemic features of inflammation consisting of fever, malaise and weight loss. With disease progression and longer duration, patients become anemic and develop protein-losing enteropathy. The studies from Pakistan have shown presence of ulcerative colitis in several parts of the country. However, not much has been known about this condition in this region of Pakistan.

This study was therefore aimed to evaluate patients with ulcerative colitis who were referred to a tertiary care center in Islamabad/Rawalpindi area, and were followed for many years. Their clinical features and other patterns and management were reviewed with the course over the years.

**MATERIAL AND METHODS**

All patients who presented with abdominal pain, diarrhea, blood in the stool, and were diagnosed on colon biopsy to have ulcerative colitis were included in this study. These patients had complete blood count (CBC), erythrocyte sedimentation rate (ESR), stool routine examination, and either flexible sigmoidoscopy or colonoscopy performed. A
colon biopsy was standard protocol in these patients. Only those patients who were diagnosed to have ulcerative colitis on histopathology were included in the study.

Clinical features, age of onset, extent of involvement of the colon, and extra-intestinal features were noted. Smoking and socio-economic class were also noted. Patients were followed every month or sooner if required and later every 3 months when condition was considered stable. Follow up colonoscopies were performed every 6 months after the initial diagnosis, or whenever necessary according to patients condition. Compliance was monitored closely. All patients were followed up to period of six months to eight years.

Clinical severity was classified according to the Truelove and Witts classification.\textsuperscript{7} It takes into account the number of motions per day, amount of weight loss, pulse, temperature, hemoglobin concentration and ESR. Endoscopic classification was performed according to the Baron definition.\textsuperscript{8} This consists of grade-I (mild activity) which means loss of vascularity with no spontaneous bleeding, grade-II (moderate activity) showing bleeding on light touch and grade-III (severe activity) showing spontaneous bleeding on initial inspection.

Patients treatment modalities and response for inflammation and exacerbation during this period were noted. Histological diagnosis was made with standard colon biopsies showing crypt abscesses, crypt distortion, acute inflammatory cell infiltrates and other histopathological features\textsuperscript{9} by an experienced pathologist.

**RESULTS**

A total of 85 patients were diagnosed histologically and followed for a mean period of 5 years. The follow up period ranged from 6 months to 8 years. The demographic and clinical features are summarized in table-1.
Table-1. Features of Ulcerative Colitis

N = 85

<table>
<thead>
<tr>
<th>Feature</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Range (years)</td>
<td>21-80</td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Duration of symptoms at presentation</td>
<td>3 months - 6 years</td>
<td></td>
</tr>
<tr>
<td>Smokers (%)</td>
<td>5 (6%)</td>
<td></td>
</tr>
<tr>
<td>Hemoglobin (&lt; 10.5)</td>
<td>18 (21%)</td>
<td></td>
</tr>
<tr>
<td>High ESR</td>
<td>80 (94%)</td>
<td></td>
</tr>
<tr>
<td>Stool WBC</td>
<td>85 (100%)</td>
<td></td>
</tr>
<tr>
<td>Increased Eosinophils</td>
<td>5 (6%)</td>
<td></td>
</tr>
<tr>
<td>Increased Platelets</td>
<td>10 (12%)</td>
<td></td>
</tr>
<tr>
<td>Distal colitis</td>
<td>55 (65%)</td>
<td></td>
</tr>
<tr>
<td>Extra Intestinal Features</td>
<td>40 (47%)</td>
<td></td>
</tr>
</tbody>
</table>

Fifty five patients (65%) showed involvement of the left colon only. Thirty patients (35%) showed pancolitis. Forty-eight patients (56%) had mild disease, 23 patients (27%) had moderate disease and 14 patients (17%) had severe disease endoscopically (Table-2). Although all patients showed histological criteria of diagnosis, clinically several patients were not as sick as the endoscopic appearance of their colons.

Sixty patients (70%) were treated with mesalamine, mainly as Asacol, and the dose ranged from 1200-2400 mg per day which was eventually tapered down to 800-1200 mg per day for maintenance. Twenty-five patients (30%) were treated with sulfasalazine with the dose ranging from 2-6 g per day. Fifteen patients (18%) were also given steroids with 8 patients (10%) given oral and intravenous steroids and 7 patients (8%) given as steroid enemas in the form of Colifoam. Two patients (2%) were given azathioprin in dose of 100 mg per day. Twenty-eight patients (33%) received Asacol enemas for 2-3 weeks time, and after that were maintained on oral mesalamine. No refractory cases were found. Two patients died of complications. One was a 78 years old female who died of toxic megacolon and other was an 84 years old male who succumbed to sepsis.
Table-2. Severity Classes of Ulcerative Colitis

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>N = 85</strong></td>
<td></td>
</tr>
<tr>
<td>Mild (%)</td>
<td>48 (56 %)</td>
</tr>
<tr>
<td>Moderate</td>
<td>23 (27 %)</td>
</tr>
<tr>
<td>Severe</td>
<td>14 (17 %)</td>
</tr>
</tbody>
</table>

Extra-intestinal features consisted mainly of stomatitis, which was noted in 31 patients (36%). Arthralgias were noted in 10 patients (12%). Cirrhosis was found in one patient. None of the patient was diagnosed as colon cancer during the follow up period. Exacerbation was noted in 3 patients, which was related to stress in the form of job and marital disharmony. None of the patients in this series was noted to be on non-steroidal anti-inflammatory drugs.

**DISCUSSION**

These patients showed high ESR and presence of numerous WBCs, which are commonly found in acute ulcerative colitis.\(^{10}\) Few patients showed eosinophilia, which has been noted, to be present in patients of Asian origin.\(^{11}\) This returned to normal levels after the treatment. Extra intestinal manifestation of ulcerative colitis are known widely\(^ {12}\) but most commonly found in our series were stomatitis and mucocutaneous features, as was found in studies from Lahore and Multan.\(^ {4,5}\) Stress can exacerbate ulcerative colitis, and it can be acute or chronic.\(^ {13}\) In our case, the stress was found to be acute and related to job or marital problems. Non-steroidal anti-inflammatory drugs have been reported to either exacerbate or cause complications in ulcerative colitis\(^ {14}\) but in our patients, none was on these medications.

The majority of our patients had distal colitis, as seen in earlier studies from Pakistan.\(^ {3,4}\) Our patients responded well to the aminosalicylic acid, as has been reported.\(^ {19}\) We did not encounter any refractory cases, although in those cases, there are recent additions of anti tumor necrosis factor, Balsalazide and Cyclosporin\(^ {16,17}\) among others. During our follow up, we did not notice any extension of these cases with distal colitis; however, that has
been reported. Over 80% of our patients had mild to moderate disease. This is about the same severity as found elsewhere in Pakistan.

Patient with ulcerative colitis can develop multiple organ dysfunction, and two of our cases developed this complication and died. None of our cases developed carcinoma of the colon. Although this is common in these patients, and occurs late in the course of disease, our follow up has not been long enough in this study. Patients with ulcerative colitis have problem with compliance and in our case, there were people who did not follow the instructions well but were still able to keep the disease under control.

Some patients with diarrhea and intermittent bleeding have ulcerative colitis but are treated empirically as infectious diarrheas with antimicrobials and other drugs. Patients with these symptoms must be worked up appropriately with stool examination and other appropriate tests. It is considered essential that any diarrhea with bleeding, with or without systemic symptoms, lasting six weeks or longer, should be investigated with a flexible sigmoidoscopy and colon biopsy to rule out inflammatory bowel disease.

In conclusion, the experience with ulcerative colitis at our tertiary care center revealed that the disease was mainly located to the left colon and mild in severity. The condition could be adequately controlled with standard therapeutic regimens. The clinical features, endoscopic extent and severity of illness does not significantly differ from other parts of Pakistan and elsewhere in the world.

REFERENCES


