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Predicting outcome in acute ulcerative colitis: Comparison of the Travis and Ho scores using UK IBD Audit data
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Background: Patients with severe Ulcerative Colitis (UC) are commonly identified using the Truelove and Witts [1] criteria on presentation. The Travis [2] and Ho [3] scores are subsequently used to identify patients with severe UC who are at high risk of failing medical therapy and needing second line therapy or colectomy. To date there has been no direct comparison of medical therapy or surgical intervention varied between these groups.

Methods: We analysed data from 3049 patients with ulcerative colitis collected during the 2010 round of the UK IBD audit. 984 patients had acute severe UC according to the Truelove and Witts criteria. Those that failed steroid therapy were scored using both Travis and Ho criteria and allocated into either a "Travis high risk" (n = 190) or "Travis low risk" (n = 201) group and either a "Ho high risk" (n = 165), "Ho medium risk" (n = 150) or "Ho low risk" (n = 65) group. We assessed whether further medical therapy or surgical intervention varied between these groups.

Results: Age and sex did not differ between the groups. Patients requiring surgery did not differ between the high risk groups (Travis 49%, n = 93 and Ho 51%, n = 84, respectively). However, only 35% (n = 53) in the medium risk Ho group, 26% (n = 17) in the low risk Ho group and 32% (n = 65) in the low risk Travis group underwent surgery. Similarly 41% (n = 78) and 38% (n = 63) of patients in the high risk Travis and Ho groups respectively were treated with ciclosporin, whereas only 34% (n = 51) were treated in the medium risk Ho group, 25% (n = 16) in the low risk Ho group and 27% (n = 55) in the low risk Travis group. Resistance to ciclosporin correlated with increasing risk stratification, although this failed to reach statistical significance (Figure 1). However, the use of anti-TNF and trial drugs was the same across all three groups, although like ciclosporin, the tendency to anti-TNF resistance also increased with increasing risk group.

Conclusions: The Travis and Ho scores are equally able to identify patients who are at high risk of failing medical therapy and needing colectomy or second line medical therapy. The Ho score identifies an intermediate risk group which also has an intermediate response to second line therapy. This may be of value clinically in defining treatment decisions in some patients. Both scores are useful tools to aid clinical decision making but do not replace timely multidisciplinary care for these patients.

Reference(s)

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Plasma biomarkers of endothelial dysfunction: monocyte chemoattractant protein 1 (MCP 1) and soluble CD40 ligand (sCD40L) in patients with inflammatory bowel diseases
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Background: One of the factors of a high importance in development of IBD is endothelial dysfunction. As a result of enhanced proliferation and activity of endothelial cells, intestinal microcirculation is altered, leading to local disturbances of intestinal blood supply with subsequent development of mucosal ulcerations. Intestinal microcirculation has influence on number and kind of migrating to intracellular space leucocytes. High soluble CD40 ligand levels (sCD40L) are associated with increased expression of adhesion molecules and monocyte chemoattractant protein (MCP-1) along with impaired endothelial cell migration and enhanced superoxide generation by monocytes.

The study aimed to assess level of endothelium dysfunction markers MCP 1 and CD40L in patients with IBD.

Methods: Eighty patients aged 18-70 with diagnosis inflammatory bowel disease [40 consecutive patients with Crohn’s disease (CD) and 40 consecutive patients with ulcerative colitis (UC)] were included into the study. Levels of MCP 1 and CD40L were measured in all patients and related to disease phenotype, clinical and biochemical activity.

Results: In UC group (22F and 18M) mean age was 36±11.7 years, in CD group (19F and 21M) mean age was 32±10 years. We have not found any statistical differences between UC and CD groups: mean level of sCD40 in UC group was 402±484 pg/ml and in CD 512±660 pg/ml (p = 0.2); mean level of MCP 1 in UC group was 139±108 pg/ml and in CD 159±96 pg/ml (p = 0.25). Level of CD40L was elevated in 28 patients with UC (70%) and in 32 patients with CD (80%). MCP 1 level was elevated only in 2 patients with UC (5%) and in 3 patients with CD (7.5%). sCD40L level correlated positively with CD activity (r = 0.32, p < 0.05). MCP 1 also correlated positively only with CD activity (r = 0.32, p < 0.05).

Conclusions: In patients with IBD sCD40L level is increased what might indicate on endothelial dysfunction in this group of patients. sCD40L correlates positively with both CD and UC activity. Farther studies are needed weather it might be used as a marker of disease activity.