

Patients with CD who had a split ileostomy 6 months before the study with the disease being quiescent by the time the study started.

- 6 patients were infused per anum into the defunctioned colon 70ml/day an ultrafiltrate of the small bowel contents for 7 days in hospital
- 6 control patients were infused per anum an ultrafiltrate of the small bowel prepared as below.
- 8 patients were infused the small bowel effluent into their mucous fistulae daily for 28 days

**Primary endpoints:** Systemic effects of these challenges and endoscopic and histological changes before and after the challenge

#### Results: N=22

- Clinical impact of the ultrafiltrate challenge, 9/15 patients had clinical relapse within a week.
- No clinical relapse of those receiving 28 small bowel infusions
- Lab tests showed significant change in lymphocytes and ESE,  $p < 0.05$
- Endoscopy: no changes in the degree of the inflammation with the challenges

#### Conclusion:

These results suggest that factors greater than 0022 microns in the faecal stream are responsible for the maintenance and exacerbation of inflammation in Crohn's disease.

Table 1 Mean haematological changes ( $\pm$ SD) in response to the ileostomy effluent and ultrafiltrate challenges

	Faecal-7 (day)		Faecal-28 (day)		Ultrafiltrate (day)	
	0	8	0	28	0	8
Haemoglobin (g/dl)	14.39 $\pm$ 1.12	14.21 $\pm$ 1.40	14.96 $\pm$ 1.08	14.89 $\pm$ 1.24	14.33 $\pm$ 1.67	14.34 $\pm$ 1.59
White blood count ( $\times 10^9$ )	8.87 $\pm$ 1.86	10.09 $\pm$ 5.23	8.51 $\pm$ 2.29	9.70 $\pm$ 5.06	7.70 $\pm$ 0.95	7.34 $\pm$ 0.84
Neutrophil count	5.81 $\pm$ 1.58	7.46 $\pm$ 5.13	5.50 $\pm$ 2.04	6.50 $\pm$ 4.18	4.99 $\pm$ 1.30	4.56 $\pm$ 1.20
%	64.9 $\pm$ 9.2	70.6 $\pm$ 12.4	63.3 $\pm$ 8.2	66.9 $\pm$ 15.9	64.0 $\pm$ 9.5	61.7 $\pm$ 12.6
Lymphocyte count	2.23 $\pm$ 0.74	1.79 $\pm$ 0.85	2.19 $\pm$ 0.40	2.40 $\pm$ 2.37	2.14 $\pm$ 0.44	2.24 $\pm$ 0.80
%	25.4 $\pm$ 7.4	20.2 $\pm$ 9.6*	27.0 $\pm$ 7.2	24.4 $\pm$ 12.0	28.1 $\pm$ 7.6	30.6 $\pm$ 10.8
Monocyte count	0.57 $\pm$ 0.29	0.60 $\pm$ 0.29	0.54 $\pm$ 0.18	0.64 $\pm$ 0.49	0.43 $\pm$ 0.16	0.43 $\pm$ 0.22
%	6.6 $\pm$ 3.0	7.1 $\pm$ 2.7	6.9 $\pm$ 2.8	7.0 $\pm$ 1.9	5.7 $\pm$ 2.6	5.7 $\pm$ 3.2
Eosinophil count	0.24 $\pm$ 0.27	0.22 $\pm$ 0.17	0.30 $\pm$ 0.34	0.20 $\pm$ 0.33	0.19 $\pm$ 0.12	0.14 $\pm$ 0.11
%	2.5 $\pm$ 2.3	3.1 $\pm$ 3.3	2.9 $\pm$ 2.6	1.7 $\pm$ 1.9	2.1 $\pm$ 1.5	1.9 $\pm$ 1.8

\*  $p < 0.05$ .

Table 2 Changes in the means ( $\pm$ SD) of other laboratory measurements in response to the faecal and ultrafiltrate challenges

	Faecal-7 (day)		Faecal-28 (day)		Ultrafiltrate (day)	
	0	8	0	28	0	8
Albumin (g/l)	43.1 $\pm$ 3.4	42.4 $\pm$ 2.9	43.9 $\pm$ 4.1	43.1 $\pm$ 3.7	42.7 $\pm$ 5.4	44.3 $\pm$ 3.6
ESR (mm/h)	8.3 $\pm$ 9.1	17.5 $\pm$ 17.8*	4.9 $\pm$ 3.6	11.1 $\pm$ 17.3	11.9 $\pm$ 12.0	10.1 $\pm$ 8.3
CRP (mg/dl)	1.26 $\pm$ 1.33	1.11 $\pm$ 0.66	1.83 $\pm$ 1.92	1.32 $\pm$ 1.07	0.71 $\pm$ 0.19	0.77 $\pm$ 0.26
Orosomucoids (mg/dl)	77.8 $\pm$ 23.3	81.9 $\pm$ 26.2	77.2 $\pm$ 24.1	72.7 $\pm$ 18.0	67.4 $\pm$ 16.2	66.9 $\pm$ 11.9
IgA (g/l)	2.55 $\pm$ 1.09	2.64 $\pm$ 1.12	3.03 $\pm$ 1.35	2.87 $\pm$ 1.17	2.80 $\pm$ 0.98	2.93 $\pm$ 1.18
IgG (g/l)	12.26 $\pm$ 4.18	12.19 $\pm$ 4.45	11.97 $\pm$ 2.75	11.48 $\pm$ 2.85	11.20 $\pm$ 3.32	11.50 $\pm$ 3.15
IgM (g/l)	1.69 $\pm$ 0.65	1.90 $\pm$ 1.15	1.68 $\pm$ 0.79	1.65 $\pm$ 0.65	1.77 $\pm$ 0.51	1.83 $\pm$ 0.36

\*  $p < 0.02$ .

