



## Study of active Ulcerative Colitis / Crohn's Disease

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In a double-blind study, 2 groups of Colitis / Crohn's Disease were investigated.

### → Group A

48 patients

18 men aged between 15 and 42 yr.  
30 woman aged between 16 and 42 yr.

### → Group B

52 patients

22 men aged between 17 and 41 yr.  
30 woman aged between 15 and 40 yr.

We treated a total of 100 persons whose basic illness was the auto-immune form of Ulcerative Colitis and Crohn's Disease. They were regularly treated over a period of 12 weeks.

- Group A received the usual standard treatment. They were also regularly treated with activated breathing air which was given by inhalation. They inhaled twice a day for 30 minutes respectively.
- Group B received the standard treatment without the additional use of activated breathing air.

They were regularly examined and the clinical and chemical laboratory parameters were investigated. Tests were done after 1, 2, 4, 8 and 12 weeks. At the beginning of the study the initial laboratory parameters were determined. Further laboratory parameters were determined after 1, 2, 4, 8 and 12 weeks.

During treatment of inflammatory intestinal diseases, analgesics and steroid and non-steroid inflammatories were used.

The following parameters were investigated:

- Total protein
- Albumins
- CRP
- Creatines
- Uric acid
- BSE



## Stichting Ziekenzorg Westelijke Mijnstreek

- GGT
- ALAT
- Haematological parameters, Leucocytes
- Lysozymes in the faeces

The patient received questionnaires in which they document the following parameters:

- Use of pharmaceutical drugs
- Pain
- Coloscopic assessment
- Stool (quality and quantity)
- Weight
- Sleep
- Sense of well-being



## Results

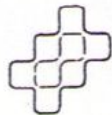
### Group A

Treatment: After a week it was established that 42 out of 48 patients (88%) were taking fewer drugs for treatment for pain and inflammatories.

The laboratory tests that were carried out regularly produced the following results:

### Laboratory

		0	1	2	4	8	12	number	As a %
Albumin	$\bar{X}$	34	36	37	38	38	37	43 of 48	90
	sd	2,5	2,5	2,0	2,5	2,2	2,3		
CRP	$\bar{X}$	66	58	40	32	23	18	45 of 48	94
	sd	20	14	10	10	11	10		
BSE	$\bar{X}$	57	50	40	30	35	22	42 of 48	88
	sd	20	20	15	12	13	12		
Leucocytes	$\bar{X}$	11,9	9,0	7,5	7,7	8,2	7,8	40 of 48	83
	sd	3,9	2,9	2,5	2,2	2,4	2,3		
Lysozym fec.	$\bar{X}$	80	50	26	6	10	5	45 of 48	94
	sd	25	20	14	10	12	5		



### Group B

After 2 weeks we observed that 25 out of 52 patients (48%) were taking fewer pharmaceutical drugs (analgesics, anti-inflammatories). As a whole there was less significant improvement in the illness with standard treatment than there was in Group A.

### Laboratory

		0	1	2	4	8	12	number	As a %
Albumin	$\bar{X}$	35	35	36	37	35	36	30 of 52	58
	sd	3,0	2,2	2,5	2,4	2,3	2,2		
CRP	$\bar{X}$	74	68	60	40	45	50	30 of 52	63
	sd	26	20	18	15	16	17		
BSE	$\bar{X}$	71	66	54	40	43	44	30 of 52	54
	sd	30	20	17	15	16	16		
Leucocytes	$\bar{X}$	10,9	9,4	9,0	8,6	9,2	9,0	30 of 52	63
	sd	3,8	3,0	2,7	2,8	2,9	2,8		
Lysozym fcc.	$\bar{X}$	69	60	45	20	35	33	30 of 52	69
	sd	22	20	15	7	10	12		



### Conclusion

#### Group A

43 out of 48 patients (90%) felt that their complaints were much better after 5 days. There was a significant reduction in the laboratory inflammation parameters and in the frequency of slimy diarrhoea. The symptoms of the illness also improved in general. Radiocally and clinically the condition of the intestinal mucosa improved. There was a general improvement in quality of life.

Values as a %	Better	The same	Worse	Total
Diarrhoea	90	10	0	100
Pain	83	17	0	100
Pharmaceutical drugs	88	12	0	100
Sleep	90	10	0	100
Weight	88	12	0	100
General conditions	94	6	0	100

#### Group B

After 2 weeks of conventional treatment, the mobility of 30 out of 52 patients (58%) improved and there was a tendency toward further improvement. 25 out of 52 patients (48%) reported less pain after 2 weeks. The tendency continued to the end of the tests. 32 out of 52 patients (62%) reported an improvement in general well-being and quality of life.

Values as a %	Better	The same	Worse	Total
Diarrhoea	50	40	10	100
Pain	48	42	10	100
Pharmaceutical drugs	48	52	0	100
Sleep	50	50	0	100
Weight	45	55	0	100
General conditions	62	38	0	100