



European
Crohn's and Colitis
Organisation

Monitoring Response to anti-TNF Therapy in Ulcerative Colitis Patients by Gastrointestinal Ultrasound

Sub-analysis from TRUST&UC

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Disclosure

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Introduction

- Gastrointestinal ultrasound (GIUS) is a non-invasive diagnostic modality providing objective parameters of ulcerative colitis (UC) activity.
- Disease management concepts (Treat-to-Target (T2T), Tight Control) integrate objective and clinical parameters for guiding treatment optimization resulting in improved outcomes.
- Hence, GIUS parameters such as bowel wall thickening (BWT) could serve as adjunctive objective parameters for treatment optimization.
- Here, we assessed the utility of GIUS for monitoring response to anti-TNF therapy in ulcerative colitis patients.

Methods – Study design

TRUST & UC was a prospective, observational multicentre study in N=224 patients with active UC and at 42 centres in Germany

Inclusion criteria:

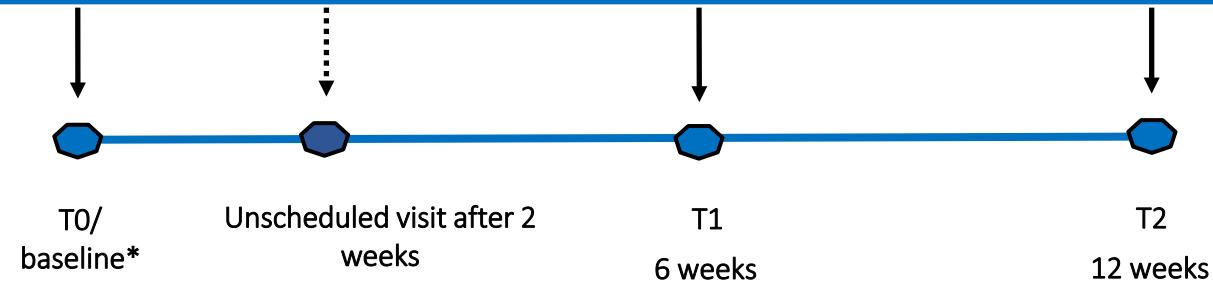
- Patients ≥ 18 years
- Patients with diagnosis of left-sided colitis or pancolitis and currently in relapse (SCCAI ≥ 5)
- Signed patient consent declaration

Primary objective: prospective evaluation of GIUS in disease course control of UC patients in routine medical practice.

US parameters: increased bowel wall thickness (BWT), loss of bowel wall stratification, loss of haustration, mesenteric fibro-fatty proliferation and/or masses, mesenteric lymphadenopathy, ascites, and vascularity within the affected bowel wall areas are qualitatively assessed by duplex US.

Laboratory and clinical parameters: CRP, FC, white blood cell count (WBC), platelets, change in UC-specific medication and SCCAI are measured.

N=253 patients with UC and SCCAI ≥ 5
*patients without a BWT at T0/baseline were documented, but excluded from the study for further documentation.



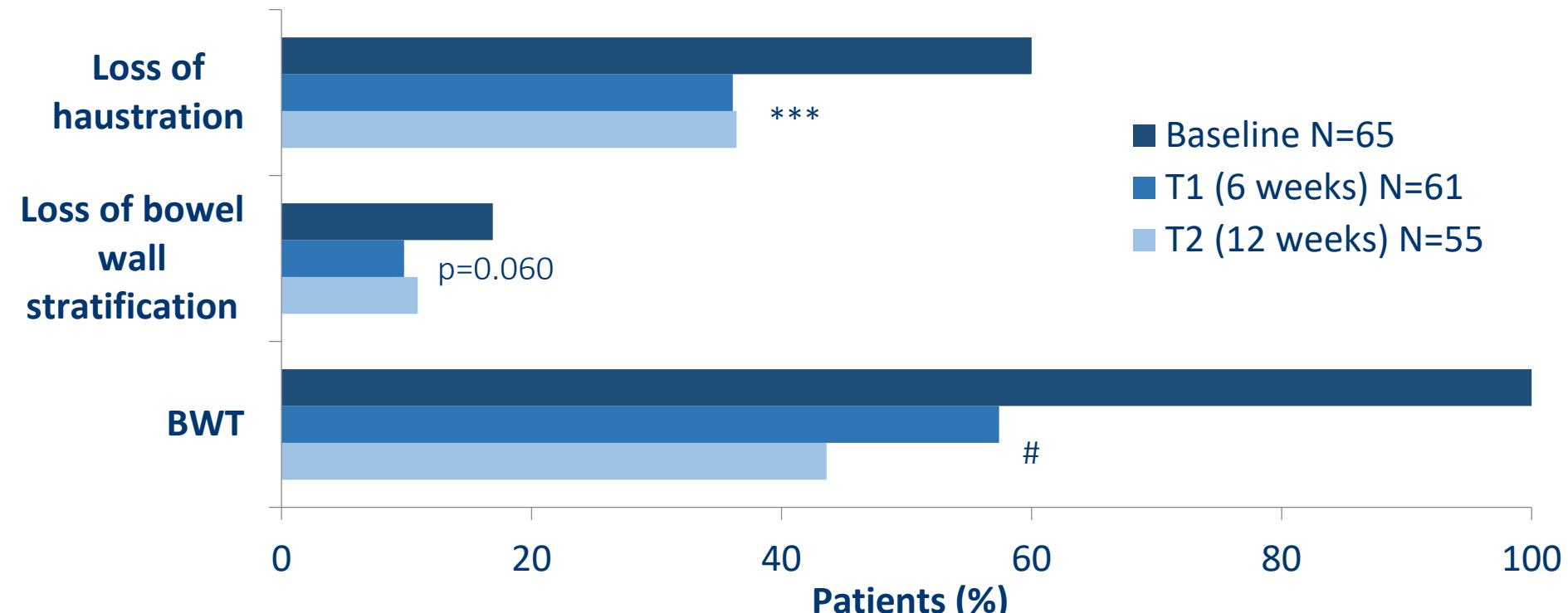
Results – Baseline

- **29.0 % (65/224) received an anti-TNF therapy (adalimumab, golimumab or infliximab) at least at one time point during study**
- All patients (65/65) had a **bowel wall thickening in the sigmoid colon or descending colon.**

Patient demographics and characteristics at baseline (N=65)

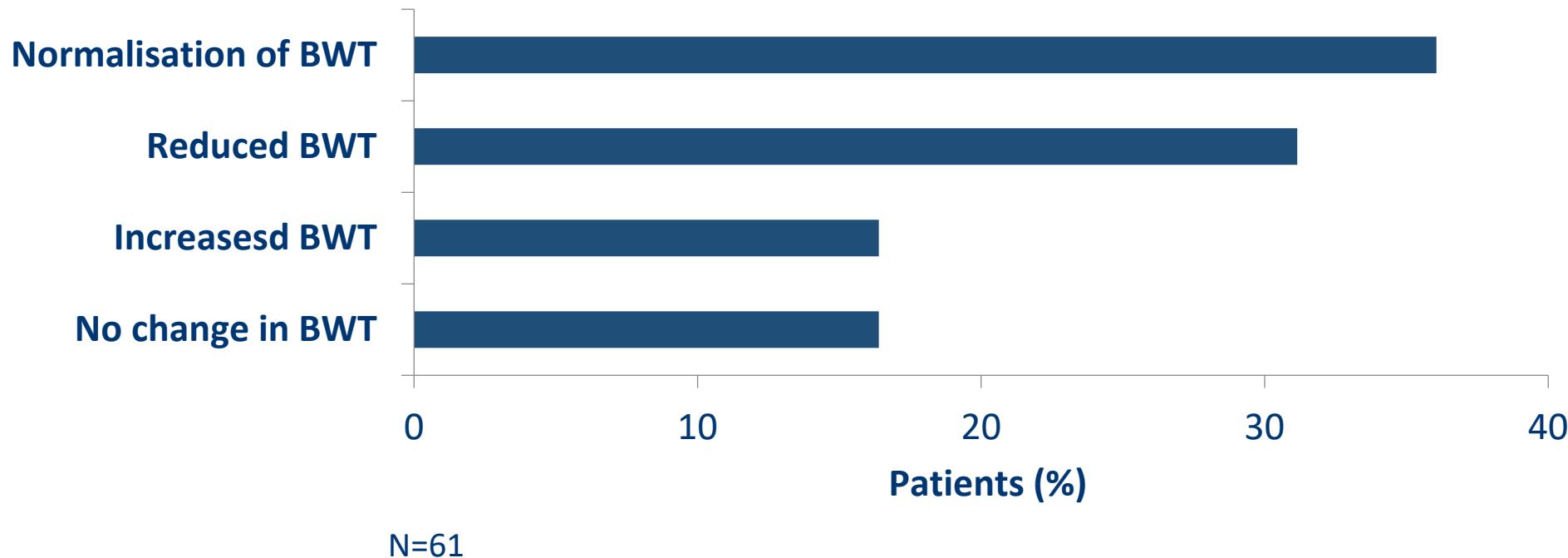
Age [years, mean ± SD]	37.3 ± 12.9
Male [%]	56.9
Time till diagnosis [months, mean ± SD)	7.56 ± 8.39
SCCAI	9.52 ± 2.62
CRP [mg/dL, mean ± SD]	3.91 ± 6.07
FC [μ g/g, mean ± SD]	1,609 ± 1,721.7

Results – Change in GIUS parameters over the study period

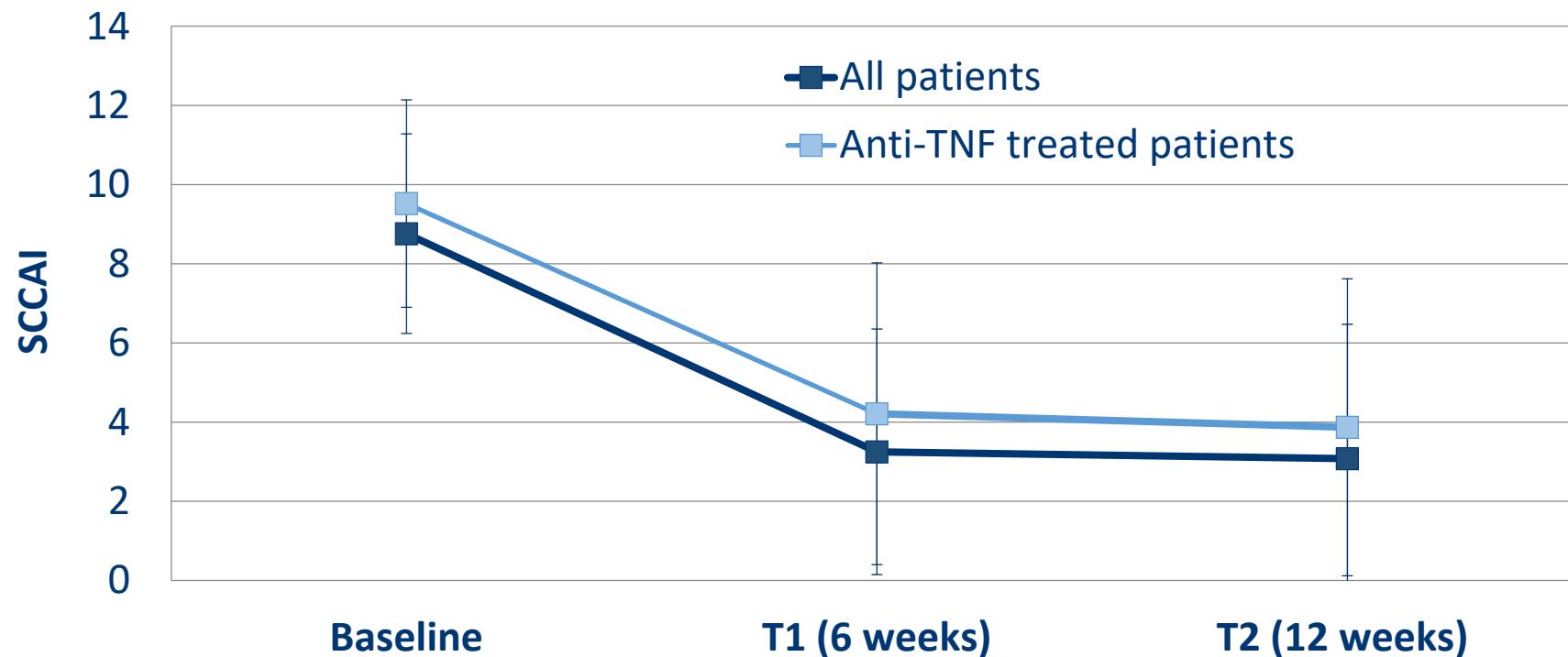


***p<0.001, #p=0.001; Chochran-Q-test

Results – Change in BWT over the study period



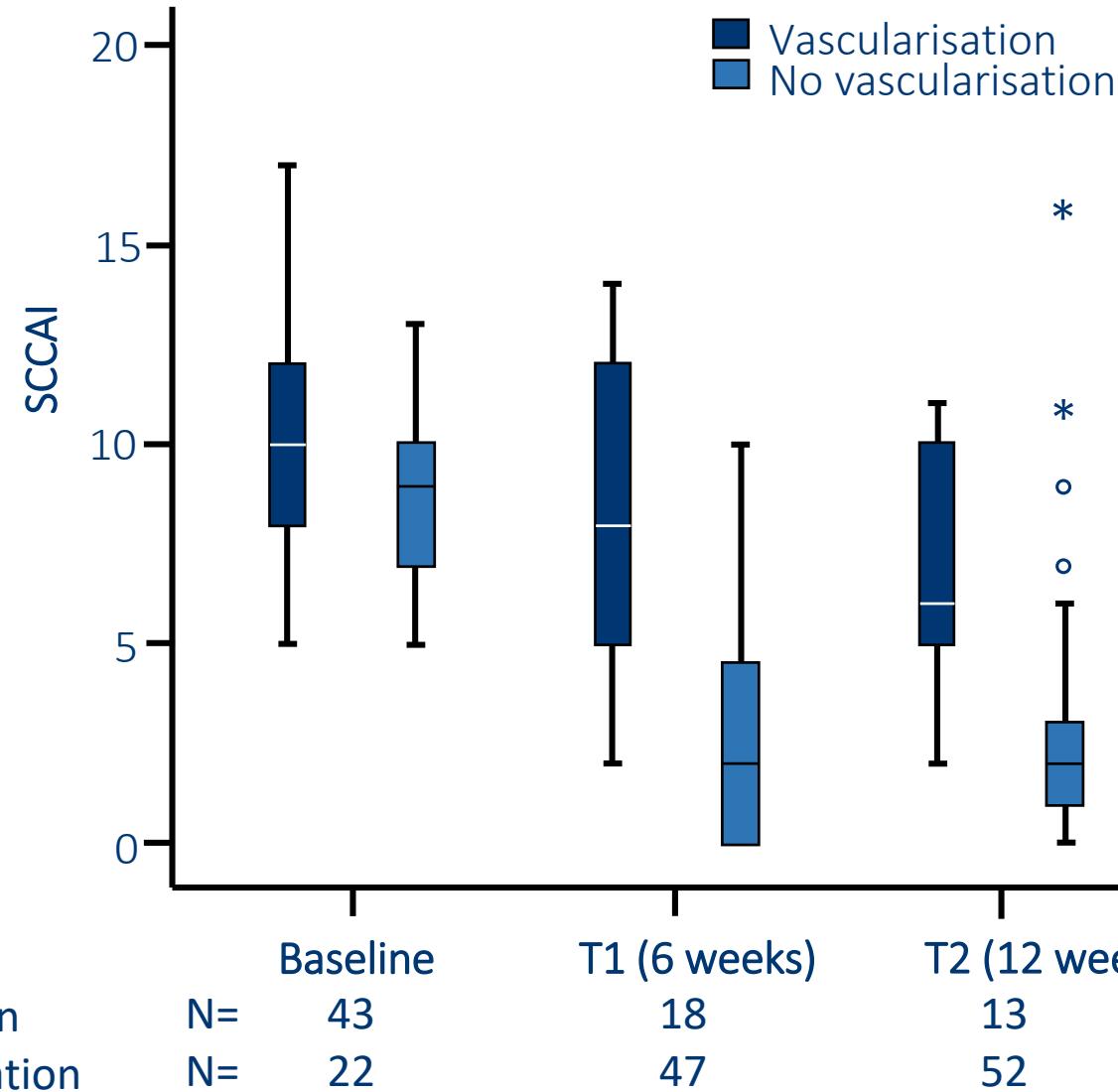
Results – Change in SCCAI during study period



All patients	N=	224
Anti-TNF treated patients	N=	65

189	
61	
179	
55	

Results – Correlation of SCCAI and vascularisation



Conclusion

We demonstrated that anti-TNF treatment results in normalisation/reduction of BWT in a majority of UC patients as early as 6 weeks after start of anti-TNF therapy

GIUS is useful in early monitoring of therapy response to anti-TNF therapy in UC patients enabling a non-invasive, easy and repeatable mean of tight control in daily practice