Retrospective study of the effectiveness and safety of Ustekinumab in refractory Crohn's Disease

M. Truyens[1,2,3], M. Goossens[3], E. Glorieus[3], J. Geldof[3], P. Hindryckx[1,3] and T. Lobaton[1,3]

[1]IBD research unit – Gastroenterology, Department of Internal Medicine and Pediatrics, Ghent University, Ghent, Belgium. [2]VIB center for Inflammation Research, Ghent, Belgium. [3]Department of Gastroenterology, University Hospital Ghent, Belgium

Introduction

Ustekinumab (UST) is used increasingly in Belgium to treat moderate to severe **Crohn's disease** (CD). The goal of this study was to describe the effectiveness of UST in our tertiary center.

Methods

A retrospective monocentric study was performed in patients with CD who were started on UST between December 2017 and December 2018.

UST dosing:

- Intravenous dose (6 mg/kg)

Followed by:

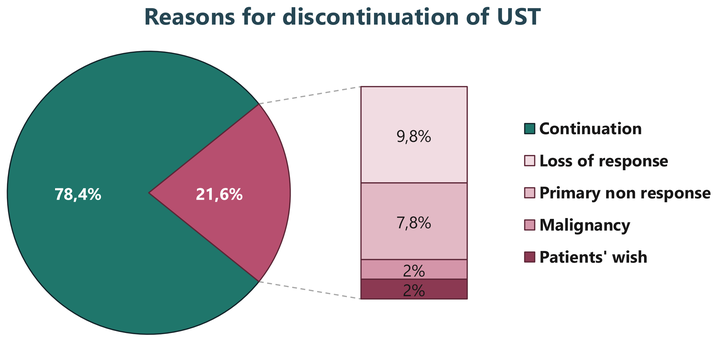
- Subcutaneous UST (90 mg, q8)

The **clinical, endoscopic and radiological response** was assessed during the follow-up. A **biological response** was defined as a decrease of ≥50% in C-reactive protein (CRP) and/or fecal calprotectin (FC), remission as a normalization of the parameters.

Baseline characteristics	
Gender, n [%]	
Female	29 [56.9]
Male	22 [43.1]
Age (years), median [IQR]	41.7 [32.4-53]
Age at diagnosis (years), median [IQR]	24.5 [18-34.8]
Duration of disease (years), median [IQR]	12 [8-21]
History of resection, n [%]	29 [58]
Extra-intestinal manifestations, n [%]	19 [37.3]
Corticosteroids at baseline, n [%]	24 [47.1]
Immunosuppressant at baseline, n [%]	11 [19.6]
Azathioprine	5 [9.8]
Methotrexate	4 [7.8]
Purinethol	1 [2]
Previous biologicals, n [%]	
0	3 [5.9]
1	14 [27.5]
2	17 [33.3]
≥ 3	17 [33.3]

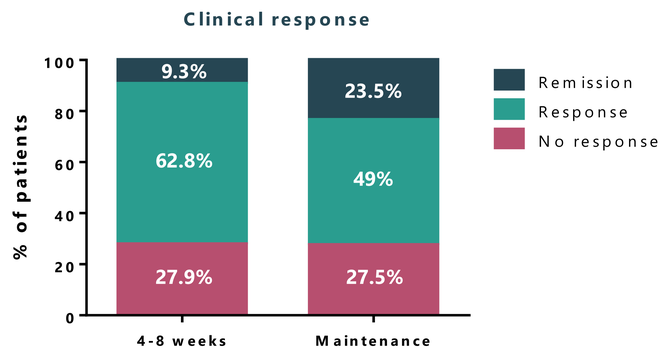
Results

A total of **51 patients** were included, of which the majority were refractory to TNF inhibitors and/or vedolizumab (table 1). The median duration of follow-up was 45 weeks (IQR 24-69). UST was discontinued in 11 patients (21.6%) after a median of 26 weeks (IQR 10-34). Reasons for discontinuation are shown below.

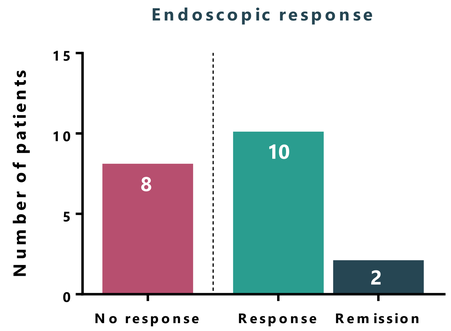


The **clinical response** at **short term** (4-8 weeks after the initial IV induction), could be assessed in 43 patients. 27/43 patients had a response and 4 patients were in clinical remission. In 12 patients no response was seen.

During the **maintenance phase** patients were assessed at a median of 26 weeks (IQR 23-39). A clinical response in the maintenance period was seen in 25/51 patients (49%) and an additional 12 patients (23.5%) reached remission.



A **biological response** was achieved in 8/37 patients (21.6%) and biological remission in 16/37 (43.2%), the remaining patients (35.1%) showed no response. Endoscopy was performed in 20 patients and an **endoscopic response** was confirmed in 10/20 patients (50%), remission in 2 patients (10%). The other 8 patients (40%) had no endoscopic response.



Radiological evaluation was performed in 21 patients of which 12 showed no response (57.1%), 7/21 (33.3%) had a response and 2 (9.5%) were in radiological remission.

AEs Ten patients (19.6%) were hospitalized for IBD-related complications, most of them for surgery (9/10). Other adverse events (AEs) occurred in 11 patients, most often arthralgia. One patient developed a flare of an underlying spondyloarthropathy and UST was discontinued. A paradoxical worsening of psoriasis was observed in 1 patient.

Conclusion

In this population of **refractory CD** patients, UST was efficacious to **induce and maintain clinical remission. Endoscopic and radiological** response in these preliminary analyses were **modest.**