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Efficacy and Safety of ustekinumab and vedolizumab for treatment of Inflammatory bowel disease patients Among Saudi population: retrospective cohort study

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INTRODUCTION

Inflammatory bowel disease (IBD) is associated with chronic inflammation of various regions within GIT. There are two types of IBD: Ulcerative colitis (UC) And Crohn's disease (CD). Ulcerative colitis (UC) can be defined as a mucosal inflammatory condition confined to rectum and colon. Crohn's disease (CD) is transmural inflammation of GIT that can affect any part from mouth to anus. CD or UC may present with similar symptoms and some patients present with extraintestinal manifestations before GI symptoms occur. The incidence of IBD has been gradually increasing in Saudi Arabia over the years. Ustekinumab and vedolizumab belong to biologic medications used in treatment of inflammatory bowel disease. vedolizumab (VDZ), a monoclonal antibody that inhibits the α4β7 integrin of the gut mucosal addressin cell adhesion molecule 1 (MAdCAM-1). Ustekinumab (UST) is a directed against to the p40 protein subunit used by both the IL-23 and IL-12 cytokine. Vedolizumab and ustekinumab become part of pharmacological treatment for ulcerative colitis and crohn's disease.

OBJECTIVES

The primary objective was to to assess the safety profile of ustekinumab and vedolizumab among Saudi patients
The secondary objective was to evaluate the efficacy of these medications based on the standard assessment measures.

METHODS

This is a single-center retrospective cohort study was conducted at King Saud University Medical City (KSUMC). The data was collected from electronic medical records and included patients' demographics, patient disease status, medications history, clinical progress assessments which include endoscopic, histologic, biomarkers, and patient-reported outcomes (PROs) . All Saudi patients received at least one dose of ustekinumab or vedolizumab between Jan 2018 to oct 2021 were included. Descriptive analyses were conducted on all descriptive data. Ethical approval was obtained prior to study begin.

RESULTS

87 patients were included, 55 of them were on vedolizumab while 36 of them were on Ustekinumab. Four patients received both medications on different time. Thirty-four patients (94%) of the patients who were on ustekinumab achieved clinical response, and 33 of them achieved clinical remission. Of them, 8 patients stopped the medication, in which 5 of them were in clinical remission at some point. Forty-three patients (79%) who received vedolizumab achieved clinical response, and 37 of them achieved clinical remission. Of them, 18 patients stopped this medication in which 4 of them were in clinical remission at some point. All patients achieved clinical remission have continued the medication until the the study was concluded with a mean duration treatment of 131 weeks.

Patient's demographics :

Average age	34.26±4.72 years
Male	44 (50.7%)
Mean duration of disease	11.03370787
Crohn's disease	48
Ulcerative colitis	39

Safety and efficacy endpoints:

Medication	Total	Clinical response	Clinical remission
Ustekinumab	36	34	33
vedolizumab	55	43	37

Medication	nausea and vomiting	Infection	Joint pain	Shortaness of breath	Pain in extremities
Ustekinumab	9	4	1	1	3
vedolizumab	1	2	2	2	0

DISCUSSION AND CONCLUSIONS

Vedolizumab and Ustekinumab were effective to achieve Immediate and intermediate treatment target as defined in STRIDE-II among Saudi population with IBD. No safety issues were found in both groups.

REFERENCES

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