Japanese Journal of Gastroenterology and Hepatology

Case Report

ISSN: 2435-1210 | Volume 9

A Case of New-onset Inflammatory Bowel Disease (IBD) Following Secukinumab (SEK) Treatment of Psoriasis: A Case Report with Clinicopathological Analysis

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Received: 15 Apr 2023
Accepted: 20 May 2023
Published: 30 May 2023
J Short Name: JJGH

Keywords:

Interleukin; Inflammatory bowel disease; Anti-Inflammatory Agents/adverse effects; Colitis; Ulcerative/chemically induced

Citation:

Li Y. A Case of New-onset Inflammatory Bowel Disease (IBD) Following Secukinumab (SEK) Treatment of Psoriasis: A Case Report with Clinicopathological Analysis. J Gastro Hepato. 2023; V9(21): 1-2

1. Abstract

We present a case of new-onset IBD in a patient following SEK treatment for psoriasis. The Patient's IBD symptoms were successfully treated with glucocorticoids and adalimumab. The published literature contains a small number of case reports of the new onset of IBD following the treatment of SEK. This report can provide a new evidence for scholars to study.

2. Introduction

Secukinumab (SEK), a selective humanized monoclonal antibody against interleukin 17-A (IL-17A), is a licensed treatment for psoriasis, ankylosing spondylitis, and psoriatic arthritis. SEK treatment has been associated with new-onset inflammatory bowel disease (IBD) or worsening symptoms of pre-existing IBD through poorly understood mechanisms. These observations were mainly based on clinical trial data analysis, and real-life examples outside clinical trials have rarely been reported, with no consensus on treatment options. Here, we present a case of new-onset IBD in a patient following SEK treatment for psoriasis. The patient's IBD symptoms were successfully treated with glucocorticoids and adalimumab.

3. Case Report

A 37-years-old female with a 10-year history of severe plaque psoriasis received subcutaneous injections of SEK 300 mg/week for 2 months, with improved psoriasis symptoms. One month after the fifth injection of SEK, the patient developed sudden periumbilical abdominal pain, frequent bloody stools, fever, and an unintentional weight loss of 10 kg. Following failed treatment with antibiotics (penicillin and ofloxacin) and nonsteroidal anti-inflammatory drugs (NSAIDs), colonoscopy revealed erosions and ulcers in the ileocecum, ascending colon, transverse colon, descending colon, and rectum. The terminal ileum and sigmoid colon were within the normal limits (Figure 1A). Histological examination revealed diffuse chronic colitis in the ascending, transverse, descending colon, and rectum (Figure 1B). The patient was diagnosed with IBD, most likely ulcerative colitis.

The patient was treated with intravenous methylprednisolone 60 mg for 5 days with complete resolution of abdominal pain, fever, and significant improvement in diarrhea and bloody stool. Subsequently, oral methylprednisolone tablets combined with a subcutaneous injection of adalimumab were administered to control IBD and prevent psoriasis recurrence. After 4 months of treatment, the patient was asymptomatic, with a 10 kg weight gain and no recurrence of psoriasis. Although histology still showed active chronic colitis, colonoscopy revealed only mild erosion in the transverse and descending colon, thereby achieving endoscopic remission (Figure 1C).

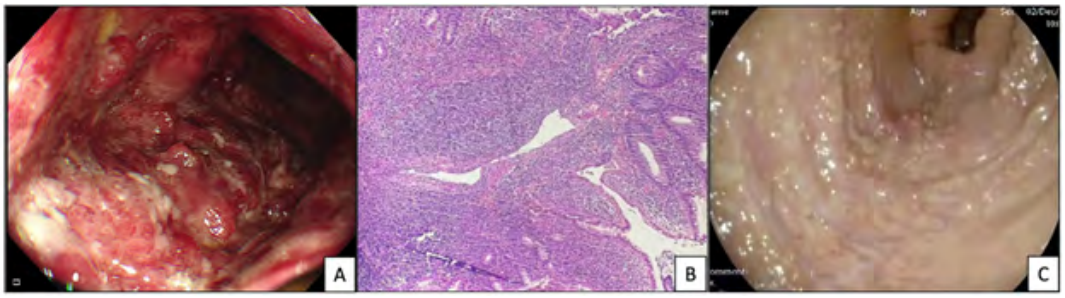

Figure 1: Findings in the ascending colon are shown here as an example (Ileocecum, transverse colon, descending colon and rectum showed similar findings): (A) Pretreatment endoscopy showed intestinal wall edema, narrowed intestinal lumen, multiple large ulcers, nodules, and diffuse hemorrhage. (B) Pretreatment histological findings included chronic active colitis with abundant lymphocytic infiltrate, surface epithelial atrophy and crypt branching. (Hematoxylin and Eosin, 40x) (C) Posttreatment endoscopy showed mild nodular hyperplasia and focal congestion.

4. Discussion

As Hueber et al [1] have shown SEK treatment has been associated with new onset Inflammatory Bowel Disease (IBD) or worsening symptoms of preexisting IBD. However, Schreiber et al [2] reported that cases of IBD events were uncommon in their pooled secukinumab safety analysis. There is debate on whether SEK will increase the potential risk of IBD.

We reported a case of SEK-induced new-onset IBD in a female psoriatic patient with no personal history of gastrointestinal symptoms or family history of IBD. This report highlights the potential small yet distinct risk of new-onset IBD associated with SEK treatment for various autoimmune diseases. Screening patients for IBD-related risk factors and choosing appropriate treatment options might help mitigate this potentially severe side effects of SEK. If IBD occurs, awareness of the link between SEK and IBD could help in the timely diagnosis and treatment of SEK-induced IBD to achieve optimal clinical outcomes.

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