



Ustekinumab and Suicidal Ideation - a Case Report

Nora Palomar-Ciria¹, Beatriz Valiente-Peña¹, Andrea Martínez-Abella¹,
Irais Garcia-Villalobos¹

¹Psychiatry Service, Complejo Asistencial Universitario de Soria, Carretera de Logroño, Soria, Spain

Keywords

Ustekinumab; suicide; antibodies, monoclonal; psychiatry

Abstract

Aim: The treatment for autoimmune and inflammatory diseases has been greatly improved thanks to the advances in biologic agents, like Ustekinumab. Though its usefulness is undeniable, it can also have important secondary effects, even psychiatric. **Case report:** We present the case of a woman diagnosed with Crohn's disease who was treated with Ustekinumab. Despite not having mental health history, since the first administration she presented emotional instability, anxiety, suicidal thoughts and self-harm behavior. **Conclusions:** Suicidal ideation as a side effect of Ustekinumab is something to be taken into account prior to the administration of this treatment, especially in patients with a history of psychiatric symptoms or disorders.

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Introduction

The treatment for autoimmune and systemic inflammatory diseases has been greatly improved in the last decades thanks to the advances in biologic agents.

Ustekinumab is a human IgG1 monoclonal antibody administered subcutaneously every 12 weeks. It works by interfering the action of proinflammatory cytokines IL-12 and 23, among other actions. Psoriasis and psoriatic arthritis are the main targets of ustekinumab, though it can also be used for the treatment of moderate to severe Crohn's disease in adults that do not respond to conventional treatment [1]. Crohn's disease is an inflammatory affection that impairs quality of life and functionality of the people suffering it as it can have long-term sequelae. In the case of Crohn disease, ustekinumab can be administered every 8 weeks after induction dose [2]. As any pharmacological treatment, ustekinumab may have many secondary effects. In our case, we would like to focus on psychiatric side effects. Depression has been described to be uncommon (1 % in patients with depression) and no other psychiatric symptoms have been notified [3,4].

Case Report

We present here a case of Mrs. U. who is a 44 year-old woman with no mental health history. She had been diagnosed with Crohn's disease in 2008. She also presented with bilateral sacroiliitis HLA - B27+. She has already been treated with corticosteroids, to which Crohn's disease showed dependence (and were suspended in January 2022), and methotrexate, to which she was intolerant. For those reasons, she was proposed for biological treatment. Firstly, she was treated with adalimumab. The treatment with this molecule had to be interrupted because of

Correspondence to:
Nora Palomar-Ciria
Psychiatry Service, Complejo Asistencial
Universitario de Soria
Carretera de Logroño, nº 8, 42005, Soria, Spain
E-mail: npalomar@saludcastillayleon.es

high suspicion of demyelination. For these reasons, it was decided to initiate treatment with Ustekinumab. The first dose was administered on March 22nd 2022 (260 mg, intravenous). The next dose was administered 8 weeks later (90 mg, subcutaneous). In July, levels were to be measured. In April 2022, she was transferred for a clinical psychology consultation because of anxiety, self-harm (cuts in both upper and lower limbs) and emotional instability.

On the 22nd of August she had her first contact with psychiatry in the Emergency Room, as three weeks before she had attempted an overdose of medication. She related affective worsening to the beginning of the biologic treatment. She was admitted in a psychiatric inpatient unit in September (from September 6th to October 19th) and was diagnosed with adaptation reaction and borderline personality traits.

The last dose of Ustekinumab, which was due in September 2022, was not administered. At first, she explained affective improvement and reduction of self-harm, at the cost of physical detriment. However, in December, she required another hospitalization stay (from December 5th to 13th) because of affective decline and self-harm.

In March 2023, she referred no anxiety symptoms and no death ideation or self-harm. This recuperation was attributed to the treatment in psychiatric rehabilitation. Throughout 2023 there have been many symptomatic fluctuations, with the predominance of anxiety and self-harm. Mrs. U. even attempted an overdose in July 2023. To this day, emotional instability is of predominance.

Discussion with Conclusions

Though biologic treatments are important landmarks for the treatment of immunological and inflammatory illnesses, they do not lack of secondary effects. It has already been described their psychiatric secondary effects. Ustekinumab can rarely produce depression [4]. The influence of biological treatments in suicidal ideation and

behavior has also been studied. For example, Brodalumab for the treatment of psoriasis, has shown no relationship with suicidal thoughts [5].

Ustekinumab has not been reported to produce suicidal ideation. Our patient in this case clearly related the appearance of suicidal thoughts with each administration of ustekinumab, beginning with the first one. She told how symptoms started since the first injection of ustekinumab, the first day of treatment. However, anxiety symptoms, self harm, and emotional instability continued in spite of the discontinuation of the biological treatment. As she said, maybe ustekinumab just triggered something that was already within her.

It is not clear how Ustekinumab generated such symptoms though we suspect of its influence in the inflammatory mechanisms. Hence, precautions with administering this kind of treatments to predisposed individuals must be taken, especially in patients with previous psychiatric history. In this case, there was no evidence of previous psychiatric disorders, which makes it more difficult to predict this type of secondary effects. With this in mind, clinicians should consider the patient as a whole as physical illnesses and their treatments can have an impact in mental health. Moreover, more studies are granted to deepen into the long-term impact consequences of this kind of treatments in mental health outcomes.

Acknowledgments

None.

Conflict of Interest

None to declare.

Funding Sources

None.

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