

Determining the frequency of telogen effluvium hair loss in female patients with covid-19 referred to Imam Reza hospital dermatology clinic at 2022

Abstract

Background: Telogen effluvium (TE) is the most common cause of diffuse hair loss in adult women and is characterized by widespread hair loss that typically occurs 2 to 3 months after experiencing a stressful event. The COVID-19 infection is potentially one of these stressors that can serve as a significant trigger for TE.

Aim: The purpose of this study is to investigate TE in COVID-19 patients and its relationship with the severity of the disease.

Materials and methods: The purpose of this cross-sectional study was to examine female patients who were referred to the skin and hair clinic of Imam Reza Ardabil Hospital with a chief complaint of hair loss. After participating in the study, all patients were examined for their history of COVID-19 infection, hospitalization due to COVID-19, medications received for COVID-19 treatment, receipt of COVID-19 vaccine and its type, number of COVID vaccine doses, and demographic factors. The severity of alopecia was evaluated through a clinical examination of the patient and a traction test. These patients were divided into three categories based on the severity of the COVID-19 disease: 1) mild infection with outpatient treatment, 2) moderate infection with hospitalization in a regular ward, and 3) severe disease requiring hospitalization in the ICU or mechanical intubation.

Results: A total of 270 patients with TE and a history of COVID-19 in the previous 6 months were included in the study. The average age of the patients was approximately 41 years. 83% of the patients had a history of hospitalization due to COVID-19, and 40.3% of them had a history of receiving the COVID-19 vaccine. During the course of the Covid-19 disease, 43.7% of patients self-administered antibiotics, 61.8% used systemic corticosteroids, and 51.8% used NSAIDs. The severity of the COVID-19 disease was found to be significantly related to the

earlier occurrence of TE ($P = 0.02$) and the increased number of hairs pulled out in the traction test ($P = 0.001$). Hospitalization due to COVID-19 was found to have a significant relationship with a shorter period of time between contracting COVID-19 and the onset of TE symptoms ($P = 0.02$), as well as an increase in the number of pulled hairs in the traction test ($P = 0.04$). The administration of the AstraZeneca vaccine resulted in a significant reduction in the time between the onset of covid and alopecia ($P = 0.001$), as well as a significant increase in the number of hairs extracted during the traction test ($P = 0.001$). The findings of this study indicate a significant relationship between the use of systemic corticosteroids during COVID-19 infection and a decrease in the time between COVID-19 infection and the onset of alopecia symptoms ($P = 0.03$).

Conclusion: The severity of TE in patients with covid-19 was related to the increase in severity of covid-19, hospitalization due to covid-19, use of systemic corticosteroids during the disease and history of AstraZeneca vaccine injection.

Keywords: Hair loss, COVID-19, telogen effluvium, alopecia.