Abstract:

Dermatophytes are a unique family of keratinophilic fungi that cause skin infections in humans and animals and are classified into three genera, Trichophyton, Microsporum, and Epidermophyton, based on their anamorphic stage. Dermatophytosis affects millions of people every year. Although this disease is not life-threatening, it affects people's quality of life and imposes huge treatment costs on patients. Different types of dermatophytosis are usually treated with systemic or local forms of two families of allylamines and azoles of antifungal drugs.

Tinea corporis or ringworm is a fungal infection of the trunk skin caused by dermatophyte fungi such as Microsporum, Trichophyton and Epidermophyton. Due to the fact that the COVID-19 pandemic and the change in lifestyle, vaccination in a wide range and the reception of medicinal compounds such as corticosteroid groups have undergone a possible change in the mechanism of pathogenesis and the process of pathogenesis and the treatment of infectious diseases, especially fungal infections, following numerous reports from Regarding the unusual appearance of fungal skin lesions on the body and their aggressive

behavioral shift, we decided to prove this hypothesis and the factors involved in this case and to identify the species that cause unusual infections.

Background and purpose: This type of study is a descriptive-cross-sectional study and its purpose is to isolate and identify dermatophytes isolated from patients referred to Ardabil skin clinic during the corona pandemic in 1401 and to evaluate their drug sensitivity pattern.

Materials and methods:

In this study, sampling of lesions suspected of dermatophytosis of patients with a history of covid-19, referred to the Ardabil skin clinic, was performed. The sample size was 37 patients and after sampling the collected shells for mycological examination and identification of species by slide culture method, they were sent to the specialized mycology laboratory of Imam Reza Hospital (AS) and after confirming the disease by a mycologist, they were cultured. Dermatophyte was performed in special environments. After the growth of the colonies, the slide culture method was used to determine the species, and finally, to determine the drug sensitivity pattern, four drugs, fluconazole, itraconazole, griseofluin, and itraconazole were used using the CLSI-M38-A2 standard protocol.

Conclusion and discussion:

During the examination of 37 collected samples, the most affected group was 30-39 years old, and male sex was the most referent with 19 people (51.4%). 25 of the patients (67.6%) had a history of taking antifungal drugs before the visit. There was a history of using corticosteroid drugs in 16 (43.2) of the patients, which seems to be one of the factors influencing the development of the disease. And 1 patient had a history of hospitalization due to covid-19. Out of 37 patients, 35 patients (94.6) have had a history of corona vaccination, most of which are related to Sinopharm. None of the patients had a history of contact with animals and the most affected area was the groin with 27 patients (73%). The results of morphological species identification showed that 29 species related to Trichophyton mentagrophytis, 4 species related to Trichophyton rubrum, 2 species related to Trichophyton tonsorens and 2 species related to Trichophyton vercosum were reported. During the examination of the average MICs obtained on different dermatophyte species, itraconazole with MIC=0.018 μg/mL and terbinafine with MIC=0.06 μg/mL and griseofluin with MIC=0.24 μg/mL and fluconazole MIC=1.06 μg/mL were effective respectively. The most tested drug was introduced in this project.

Keywords: dermatophytosis, dermatophyte, drug sensitivity, covid 19