

STUDYING THE EFFECTIVENESS OF A COMPREHENSIVE METHOD FOR TREATING TRICHOPHETIAS

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Introduction:

Trichophytosis is a zooanthroponotic anthropurgic mycoses of the skin, hair, and sometimes nails, caused by various types of fungi of the genera Trichophyton, respectively, with a contact mechanism of transmission of pathogens. Species composition of the causative agent of mycoses of the skin and its appendages, Trichophyton. Infection with a zoophilic fungus from person to person is possible, but does not exceed 2–4% [3, 4]. It would be a mistake to think that the pathogen is an indispensable attribute of the ecological system and its eradication will violate certain natural patterns. The ultimate goal of studying biocenotic patterns is to change them in such a direction as to exclude the existence of parasitic forms in the biocenotic system. Most children (and adults) become infected through direct contact with a sick animal. Transmission of the causative agent of trichophytosis from person to person is possible, but is no more than 4% for zoonotic

trichophytosis, in contrast to anthroponotic forms of trichophytosis, which in the old days was called “school infection” [2, 4].

There is a certain rule for trichophyton: large-spored trichophyton (*T. verrucosum*) parasitize mainly on large animals, small-spored ones (*T. mentagrophytes* var. *gypseum*) – on small ones [3, 5]. The incubation period is 5–8 days for anthroponotic trichophytosis, and from 2 weeks to 1.5 months for zoonotic trichophytosis [2, 6]. Susceptibility to pathogens increases in the presence of various, including microscopic, damage to the stratum corneum of the epidermis, maceration phenomena observed in the hot season and high humidity. After the introduction and germination of the mycelium, the finished colony of the fungus can continue to spread either through enhanced formation of blastospores (which indicates the presence of particularly favorable living conditions), or through continued germination of the mycelium [5, 7]. Different types of fungi may have different preferences for reproduction depending on where the colony initially germinates.

The source of infection with anthroponotic trichophytosis is a sick person through direct contact with him or indirectly through objects contaminated with pieces of hair or scales from the surface of foci of mycosis containing fungal spores: a comb, a headress, underwear, a hat, etc. [2, 13, 14]. The differences in the severity of immune and inflammatory reactions caused by anthropophilic and zoophilic trichophyton are even more pronounced than in the corresponding groups of microsporums [5]. Completely ideally healthy skin is impermeable even to obligately parasitic microorganisms [5]. But such a condition of the skin as a border zone between the external and internal environment practically does not occur: there are always minor damage to the stratum corneum, maceration (and not only with increased sweating and temperature), the phenomenon of meteorological epidermitis with excessive drying or, conversely, moisturizing of the skin. With the help of its perforating organs, the dermatomycete penetrates the stratum corneum of the skin and hair. The latter occurs mainly in the hair follicle; the mycelium grows into the thickness of the hair, after which sporulation begins. The spores are located predominantly on the surface of the hair in the form of an Adamson's sheath, and such a lesion takes on the character of “ectothrix”; spores are located predominantly in the thickness of the hair, and such a lesion is called “endothrix” [2, 11]. Anthroponotic trichophytosis (AT) is represented by superficial (PT) and chronic



(CT) stages [2, 6]. On hairy skin, the superficial stage of anthroponotic trichophytosis is represented by small-focal and large-focal forms. The lesions are uneven, with unclear boundaries, without pronounced inflammatory phenomena, covered with whitish scales. The hair is broken off at a level of 1–2 mm above the skin [2, 14]. On smooth skin, ANT lesions are round or oval, slightly elevating along the periphery, with clear boundaries and a peripheral border of nodules, vesicles and crusts. CT is most often a continuation of untreated PT from childhood. It occurs more often in girls (up to 80%). Sometimes PT can immediately proceed as chronic [2, 6, 15]. CT of the scalp: diffuse peeling similar to dry seborrhea, and at the same time in some areas it may be finely focal; with long-term existence, atrophic bald spots; the most pathognomonic are “black dots” [16]. CT of smooth skin: more often on the buttocks, legs and forearms, less often on the hands, torso, face: lesions with a bluish tint, fine-plate peeling, vague boundaries; within their limits, as a rule, vellus hair is affected; on the palms and soles there is lamellar peeling similar to dry dyshidrosis [14, 17, 18]. The course of chemotherapy is long-term even without the formation of an allergy to trichophytin. This leads to the formation of trichophytosis granulomas - gumma Majocchi, a septic process in common forms - fungemia, abscessing lymphadenitis, in the contents of which anthropophilic trichophyton can be found [5, 17]. With a long course of any mycosis of the skin, skin atrophy sooner or later develops, sometimes with symptoms of poikiloderma (variegated picture); and with prolonged absence of treatment, trichophytosis granulomas are formed in the dermis - gumma Majocchi [2, 6, 13]. Infiltrative-suppurative trichophytosis (INT) is caused by zoophilic trichophyton and is divided into superficial, infiltrative and suppurative varieties [11, 12]. Superficial phase of INT of smooth skin: with T. gypseum the lesions are large, regular round or oval in shape with an erythematous and scaly surface and a continuous ridge along the periphery, sometimes clinically indistinguishable from the lesions with PT-CT with T. verrucosum smaller lesions with scalloped outlines, often located periorbitally or around natural openings [13]. Without treatment, the process moves into the next phase - infiltrative foci rise above the surface of the skin due to an increase in infiltration and the addition of an exudative component, a reaction of regional lymph nodes appears (enlargement, pain). If treatment is not started in this phase, then the next phase will be suppuration [5, 16]. The suppurative phase of INT is characterized by the formation of deep



follicular abscesses, most often on the scalp, face, and neck, mainly where vellus hair is present. These lesions with clear boundaries are covered with crusts, under which, after their removal, gaping follicles are found, secreting liquid light yellow pus (cerion Celsii). Phenomena of general intoxication and increased temperature are possible [14, 16]. The suppurative variety of INT is sometimes prone to spontaneous resolution due to the disappearance of fungi from the lesions and scarring with persistent baldness. secreting liquid, light yellow pus (cerion Celsii). Phenomena of general intoxication and increased temperature are possible [14, 16]. The suppurative variety of INT is sometimes prone to spontaneous resolution due to the disappearance of fungi from the lesions and scarring with persistent baldness. secreting liquid, light yellow pus (cerion Celsii). Phenomena of general intoxication and increased temperature are possible [14, 16]. The suppurative variety of INT is sometimes prone to spontaneous resolution due to the disappearance of fungi from the lesions and scarring with persistent baldness.

Goal of the work—clinical evaluation of the effectiveness of combination therapy for trichophytosis according to the regimen of terbinafine systemically, 1 tablet per day, once every 14 days, “Fatiderm +” spray 60 ml, which included crushed tablets of terbinafine 250 mg, 2 tablets each. Which were used externally 2-3 times a day, also the place to use fatisalik 2-3 times a day after using fatiderm +.

Materials and methods: The study involved 38 patients aged 10 to 55 years. All patients were diagnosed with trichophytosis by confirmed detection of a pathogenic fungus. Determination of the pathogen to species (seeding). All observed cases (in which culture was performed) of trichophytosis were caused by zoophilic pathogens: *T. mentagrophytes* var. *gypseum* was sown in 29 cases, *T. verrucosum* – in 9 cases. All patients had indications for combination therapy. Such indications are lesions of the scalp; hairy skin of other localizations; widespread lesions of smooth skin, exudative forms of mycosis [17]. In the area of the scalp and the ophiasis zone, foci of trichophytosis were represented by peeling with clear boundaries against the background of pronounced inflammatory phenomena (superficial stage of infiltrative-suppurative trichophytosis, INT). In 20% of cases, the process had already entered the infiltrative phase: elevation of the lesions, swelling of the skin

were noted, and in some cases weeping was observed. All patients were divided into two groups: main and control. The main group included *T. mentagrophytes* var. *gypseum* sown in 15 cases, *T. verrucosum* – in 5 cases, the control group included *T. mentagrophytes* var. *gypseum* was sown in 14 cases, *T. verrucosum* – in 4 cases.

The main group included 5 patients with infiltrative suppurative trichophytosis and 15 patients with trichophytosis of smooth skin who received treatment according to the regimen: terbinafine systemically, 1 tablet per day 1 time for 14 days, “Fatiderm +” spray 60 ml, which included crushed terbinafine tablets 250 mg, 2 tablets. Which were used externally 2-3 times a day, also the place to use fatikalik 2-3 times a day after using fatiderm +.

The control group included patients treated with systemic terbinafine + a combination of external antimycotic - iodine preparation; the external antimycotic was one of the modern creams (clotrimazole, bifonazole).

Results and discussion:

To evaluate the effectiveness of treatment for patients with trichophytosis, we used the following criteria: a positive effect on therapy at the beginning of treatment, the timing of sowing fungal pathology in the lesions, and the period of clinical recovery. In the main group of patients using the treatment regimen for patients with trichophytosis of the pharynx of the skin (15 patients), all patients had a positive effect on therapy at the beginning of treatment. In patients with infiltrating suppurative trichophytosis (5 patients), a positive effect on therapy was also observed at the beginning of treatment. In the control group, when using systemic terbinafine + a combination of external antimycotic - iodine preparation; the external antimycotic was one of the modern creams (clotrimazole, bifonazole). trichophytosis of the pharynx of the skin (14 patients), 12 patients had a positive effect on therapy at the beginning of treatment, and 2 patients did not have a positive effect, as a result of which we were forced to change the treatment regimen 2-3 days after the start of treatment.

All patients with infiltrating suppurative trichophytosis (4 patients) had a positive effect on therapy at the beginning of treatment. As a result of the work we performed, we obtained the following data: the main group of patients using the treatment regimen: patients with trichophytosis of the pharynx of the skin (15 patients) after

re-seeding, pathological fungal pathology was not detected on average 3-4 days after the start of treatment. In patients with infiltrating suppurative trichophytosis (5 patients), pathological fungal pathology was not detected on average 5-7 days after the start of treatment. In the control group of patients using the treatment regimen, patients with trichophytosis of the pharynx of the skin (14 patients) after re-seeding, pathological fungal pathology was not detected on average 6-7 days after the start of treatment. In patients with infiltrating suppurative trichophytosis (4 patients), pathological fungal pathology was not detected on average 5-7 days after the start of treatment. The period of clinical recovery in the main group was observed in patients with trichophytosis of smooth skin within 12 days from the start of the course of therapy. In patients with infiltrative suppurative trichophytosis, it was observed for an average of 23-25 days. The period of clinical recovery in the control group was observed in patients with trichophytosis of smooth skin within 16-18 days from the start of the course of therapy. In patients with infiltrative suppurative trichophytosis, it was observed on average for 28-31 days from the start of therapy.

Conclusions

Thus, the proposed treatment complex turned out to be more effective in the treatment of trichophytosis. In all 38 observed cases, a positive effect was observed and this method increased the activity of the use of antifungal drugs.

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