dermatophytes develop. In our study, *T. rubrum* was able to grow in top coat even in the absence of keratin.

In contrast, the red and white nail polishes and the base coat inhibited *T. rubrum* growth at all analyzed times. The difference in fungal growth between the tested nail polishes could be due to differences in their chemical features. Most of the top coats marketed in Brazil contain mineral oil and soy oil; red/white nail polishes and base coats, however, do not contain these substances, but do contain highly toxic chemicals such as toluene, xylene, formaldehyde, chromium and nickel. Furthermore, the preservatives and biocides commonly present in aqueous cosmetics, such as sodium benzoate, potassium sorbate, benzoic acid and phenols, decrease microorganism contamination. These substances are not added to oil-based cosmetics.⁴

Various *in vivo* conditions predispose onychomycosis by dermatophytes, including aspects inherent to the host (skin health; genetic characteristics; individual habits and customs).⁵ However, the viability of dermatophytes in top coat, as described in this study, suggests that the propagation and dispersal of this pathogen in the population can be reduced through an important prevention measure: avoidance of sharing personal cosmetic items.

REFERENCES

- Chinnapun D. Virulence Factors Involved in Pathogenicity of Dermatophytes. Walailak J Sci & Tech 2015;12:573-80.
- Clinical and Laboratory Standards Institute. Reference Method for Broth Dilution Antifungal Susceptibility Testing of Filamentous Fungi, Approved Standard – Second edition. CLSI document M38-A2. Wayne, PA: Clinical and Laboratory Standards Institute (CLSI); 2008. p. 21-7.
- Gonçalves MG, Castilho EM, Gomes CT, Brizzotti NS, Zen JP, Almeida MTG. Nail polishes: Vehicle for transmission the onychomycosis? In: Abstracts of the 18° Congress of the International Society for Human and Animal Mycology, 11-15 June 2012, Berlin, Germany. Mycoses. 2012;55:95-338.
- Ccead.puc-rio.br [Internet]. Galembeck F, Csordas Y. Cosméticos: a química da beleza. [cited 2017 out 24]. Available: http://web.ccead.puc-rio.br/condigital/ mvsl/Sala%20de%20Leitura/conteudos/SL cosmeticos.pdf.
- Criado PR, de Oliveira CB, Dantas KC, Takiguti FA, Benini LV, Vasconcellos C. Superficial mycosis and the immune response elements. An Bras Dermatol. 2011;86:726-31.

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Active search for cases of leprosy in the city of Manaus*

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Brazil together with India are the countries that have the highest rates of endemicity of leprosy in the world.¹ Among the measures to reduce these levels and the stigma that accompanies the disease for centuries, due to the incapacities that it can lead to, are early diagnosis and immediate polychemotherapeutic treatment against *Mycobacterium leprae* for the breakdown of the transmission chain.² Amazonas, a state with a high level of leprosy, was a pioneer in the implementation of multidrug therapy in Brazil in the early 1980s, which, along with other routine control activities such as training and supervision of health teams, examination of intradomiciliary contacts of new cases and active search in school students



FIGURE 1: Distribution of the joint efforts according to the areas of the city of Manaus

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and in communities, has led to a consistent fall in the disease detection coefficient over the years, from 75.5 in 1990 to 11.07 in 2016.3 However, it is a State that has the uniqueness of a reference center (Alfredo da Matta Foundation) being in charge of the Leprosy Control Program since its inception, with the deactivation of the isolation colony, which facilitates the execution of control activities by having a specialized and engaged team. Among these activities, the active search for cases in the communities is a priority strategy and, in recent years, has been done systematically, monthly, on a Saturday morning in the physical space of a school or health service, with the so-called dermatological care units, with a multidisciplinary team.^{4,5} Thus, in the years 2015 to 2017, there were 62 joint efforts in the city of Manaus, the state capital, with 2,130,264 inhabitants, covering the six districts of the city (Figure 1), with a total of 12,617 leading to the diagnosis of 112 confirmed cases of leprosy, 40 (35.7%) paucibacillary and 72 (64.3%) multibacillary, representing 19.2% of the 582 new cases of leprosy detected and reported in Manaus, during the same period. This result points to the importance of the active search for cases in the diagnosis of leprosy as a strategy to reach a repressed demand, either by the difficulty of access or by the provision of health services. \Box

REFERENCES

- Who.int [Internet]. World Health Organization. Weekly epidemiological 2016: accelerating record. Global leprosy update, reduction of burden [cited 2017 Dec 22]. Available from: http:// disease apps.who.int/iris/bitstream/handle/10665/258841/WER9235. pdf;jsessionid=95003F10129DD1BD056E7D6A26BA533B?sequence=1.
- 2. Lastória JC, Abreu MAMM. Leprosy: review of the epidemiological, clinical, and etiopathogenic aspects - part 1. An Bras Dermatol. 2014;89:205-18.
- Fuam.am.gov.br [Internet]. Boletim Epidemiológico. Hanseníase: Vigilância 3. de Contatos. Manaus: Fundação Alfredo da Matta; ano XVIII - número 024 Jacesso 22 dez 2017]. Disponível em: http://www.fuam.am.gov.br/wp-content/ uploads/2014/05/Boletim 2016.pdf.
- Talhari S, Torrecila MA, Talhari AC. A study of leprosy and other skin diseases in 4. school children in the state of Amazonas, Brazil, Lepr Rev. 1987:58:233-7.
- 5. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doencas Transmissíveis. Diretrizes para vigilância, atenção e eliminação da hanseníase como problema de saúde pública: Manual Técnico-Operacional. Brasília: Mainistério da Saúde; 2016.

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Assessing the efficacy of a 10-point referral tool in the triaging of pigmented lesions to a Dermatology clinic*

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Dear Editor,

Worldwide the incidence of melanoma is increasing faster than of any other cancer. Early detection is critical in reducing mortality and morbidity, and therefore general practitioners (GPs) need to be able to screen effectively between benign and suspicious lesions.^{1,2} Interventions that improve the accuracy of secondary care triaging may be used to prioritize patients with malignant lesions and help combat the hindrances of long waiting times. GPs referring suspected melanomas to our department were asked to use a pro forma with an integrated 10-point Likert scoring tool and grade the likelihood of lesions being melanomas (1 least likely, 10 most likely). Based on results from a previous pilot study in our department, all patients referred with a score \geq 4 were triaged to an urgent appointment and those with a score of ≤ 3 to a soon appointment. Our aim was to assess the usefulness of this proforma in discriminating between malignant melanomas (MM) and other pigmented lesions (NM). We retrospectively assessed the clinical records of all (n=75) patients diagnosed with MM in 2016 who were referred using the above proforma and matched them with 75 consecutive NM patients. Two hundred patients with primary MM were diagnosed in our department in 2016, 75 (37.5%) of which with the above proforma. In the MM group 38 patients were male and 37 female, with a mean age of 59.8 years. In the NM group, 29 patients were male and 46 female, with a mean age of 48.4 years. Both groups had overlapping scores ranging from 1 - 10 (Figure 1). Median and mean scores in the MM group were 6 and 6.02. The NM group had a

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