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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии

საქართველოს სამედიცინო სიახლენი

GEORGIAN MEDICAL NEWS

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GMN: Georgian Medical News is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board since 1994. GMN carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

GMN is indexed in MEDLINE, SCOPUS, PubMed and VINITI Russian Academy of Sciences. The full text content is available through EBSCO databases.

GMN: Медицинские новости Грузии - ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения. Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНИТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

GMN: Georgian Medical News – საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

ჟურნალი ინდექსირებულია MEDLINE-ის საერთაშორისო სისტემაში, ასახულია SCOPUS-ის, PubMed-ის და ВИНИТИ РАН-ის მონაცემთა ბაზებში. სტატიების სრული ტექსტი ხელმისაწვდომია EBSCO-ს მონაცემთა ბაზებიდან.

WEBSITE

www.geomednews.com

К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

1. Статья должна быть представлена в двух экземплярах, на русском или английском языках, напечатанная через **полтора интервала на одной стороне стандартного листа с шириной левого поля в три сантиметра**. Используемый компьютерный шрифт для текста на русском и английском языках - **Times New Roman** (**Кириллица**), для текста на грузинском языке следует использовать **AcadNusx.** Размер шрифта - **12**. К рукописи, напечатанной на компьютере, должен быть приложен CD со статьей.

2. Размер статьи должен быть не менее десяти и не более двадцати страниц машинописи, включая указатель литературы и резюме на английском, русском и грузинском языках.

3. В статье должны быть освещены актуальность данного материала, методы и результаты исследования и их обсуждение.

При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).

5. Таблицы необходимо представлять в печатной форме. Фотокопии не принимаются. **Все цифровые, итоговые и процентные данные в таблицах должны соответствовать таковым в тексте статьи**. Таблицы и графики должны быть озаглавлены.

6. Фотографии должны быть контрастными, фотокопии с рентгенограмм - в позитивном изображении. Рисунки, чертежи и диаграммы следует озаглавить, пронумеровать и вставить в соответствующее место текста **в tiff формате**.

В подписях к микрофотографиям следует указывать степень увеличения через окуляр или объектив и метод окраски или импрегнации срезов.

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

8. При оформлении и направлении статей в журнал МНГ просим авторов соблюдать правила, изложенные в «Единых требованиях к рукописям, представляемым в биомедицинские журналы», принятых Международным комитетом редакторов медицинских журналов - http://www.spinesurgery.ru/files/publish.pdf и http://www.nlm.nih.gov/bsd/uniform_requirements.html
В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.

9. Для получения права на публикацию статья должна иметь от руководителя работы или учреждения визу и сопроводительное отношение, написанные или напечатанные на бланке и заверенные подписью и печатью.

10. В конце статьи должны быть подписи всех авторов, полностью приведены их фамилии, имена и отчества, указаны служебный и домашний номера телефонов и адреса или иные координаты. Количество авторов (соавторов) не должно превышать пяти человек.

11. Редакция оставляет за собой право сокращать и исправлять статьи. Корректура авторам не высылается, вся работа и сверка проводится по авторскому оригиналу.

12. Недопустимо направление в редакцию работ, представленных к печати в иных издательствах или опубликованных в других изданиях.

При нарушении указанных правил статьи не рассматриваются.

REQUIREMENTS

Please note, materials submitted to the Editorial Office Staff are supposed to meet the following requirements:

1. Articles must be provided with a double copy, in English or Russian languages and typed or compu-ter-printed on a single side of standard typing paper, with the left margin of **3** centimeters width, and **1.5** spacing between the lines, typeface - **Times New Roman** (**Cyrillic**), print size - **12** (referring to Georgian and Russian materials). With computer-printed texts please enclose a CD carrying the same file titled with Latin symbols.

2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.

3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.

5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. **Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles.** Tables and graphs must be headed.

6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.

8. Please follow guidance offered to authors by The International Committee of Medical Journal Editors guidance in its Uniform Requirements for Manuscripts Submitted to Biomedical Journals publication available online at: http://www.nlm.nih.gov/bsd/uniform_requirements.html
http://www.icmje.org/urm_full.pdf
In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).

9. To obtain the rights of publication articles must be accompanied by a visa from the project instructor or the establishment, where the work has been performed, and a reference letter, both written or typed on a special signed form, certified by a stamp or a seal.

10. Articles must be signed by all of the authors at the end, and they must be provided with a list of full names, office and home phone numbers and addresses or other non-office locations where the authors could be reached. The number of the authors (co-authors) must not exceed the limit of 5 people.

11. Editorial Staff reserves the rights to cut down in size and correct the articles. Proof-sheets are not sent out to the authors. The entire editorial and collation work is performed according to the author's original text.

12. Sending in the works that have already been assigned to the press by other Editorial Staffs or have been printed by other publishers is not permissible.

Articles that Fail to Meet the Aforementioned Requirements are not Assigned to be Reviewed.

ავტორთა საყურადღებოდ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დავიცვათ შემდეგი წესები:

1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე,დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში - **Times New Roman (Кириллица)**, ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ **AcadNusx.** შრიფტის ზომა – 12. სტატიას თან უნდა ახლდეს CD სტატიით.

2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ, რუსულ და ქართულ ენებზე) ჩათვლით.

3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).

4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).

5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრამების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შეღებვის ან იმპრეგნაციის მეთოდი და აღნიშნოთ სურათის ზედა და ქვედა ნაწილები.

7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა – უცხოური ტრანსკრიპციით.

8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფჩხილებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.

9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.

10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.

11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.

12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.

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MULTIFOCAL FIXED DRUG ERUPTION MIMICKING ACQUIRED DERMAL MELANOCYTOSIS

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Abstract.

Fixed drug eruptions (FDEs) are adverse drug reactions manifesting in the skin after exposure to a certain drug. The lesions can manifest as single or multiple eruptions followed by a post-inflammatory hyperpigmentation. The condition is very common among the young adult population and can be located on different parts of the body: the trunk, extremities, face, lips, etc.

We report a case of a multifocal FDE following oral intake of Loratadine, Cetirizine dihydrochloride, Ibuprofen and/or Acetylsalicylic acid.

Patch testing was recommended but later on declined by the patient. However, a small punch biopsy confirmed the diagnosis of multifocal fixed drug eruption.

The lesions are often misdiagnosed or mistaken for other skin conditions. Differential diagnosis with an acquired dermal melanocytosis or other cutaneous eruptions could be done. Therefore, a brief review of the above-mentioned medications in the pathogenesis of the condition will be discussed.

Key words. Fixed drug eruption, acquired dermal melanocytosis, ibuprofen, loratadine, cetirizine, Acetylsalicylic acid.

Introduction.

Fixed drug eruptions (FDE) are adverse drug reactions caused by different types of drugs such as anti-inflammatory medications, antibiotics and other medications used in the daily clinical practice [1].

The condition is equally seen in both genders typically in 20-40-year-olds [1]. The lesions are well-defined and can occur on different parts of the body every time a certain drug is administrated [1,2]. The lesions can resolve after discontinuing the medication but often the post-inflammatory hyperpigmentation can remain permanent in the skin [2].

The clinical picture can imitate different types of conditions [3]. The histology often can be misread as a melanocytic lesion due to the presented melanophages in the dermis [4]. Therefore, the diagnosis can be quite problematic even for a skillful dermatologist [5].

Case report.

A 46-year-old man presented to the dermatology department with a few pigmented lesions located on the back and leg. The physical examination showed multiple rounds punctuate brown-greyish pigmented areas located on the lower back and left leg regions (Figure 1a-c). He reported that the lesions appeared around two years ago on the back (Figure 1c) and one year ago for the lesion located on the left leg (Figure 1a,b).

The patient is on systemic therapy for over 5-10 years for allergic rhinitis with Loratadine 10mg once daily, in a short period of time switching to Cetirizine dihydrochloride 10 mg once daily. He reports taking Ibuprofen 200 mg in case of a cold. Two years ago, the patient was diagnosed with Covid-19 for which he took Acetylsalicylic acid 330 mg/Ascorbic acid 200 mg for 10-12 days. A year later he was again diagnosed with Covid-19 for which he proceeded with acetylsalicylic acid 100 mg for 2-3 weeks. The patient denies having other comorbidities. Routine laboratory data, including liver and kidney function, electrolytes, coagulation status and complete blood counts did not show significant abnormalities – results within normal range except for the uric acid 194 umol/l (normal range 200-420 umol/l). The test for Lyme disease came negative.

A punch biopsy was performed (Figure 1b). The results showed post-inflammatory hyperpigmentation with melanophages in the dermis, a few lymphocytes in the epidermis and a hint of basal cell vacuolation (Figure 2a-c). Although the biopsied lesion was not active, it was in the pigmented stage. Based on the clinicopathological picture and the anamnesis, a diagnosis of multifocal fixed drug eruption was made.

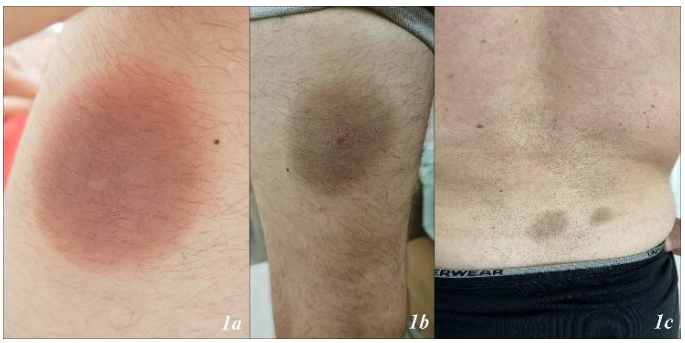

Figure 1a-c. *Fixed drug eruption after antihistamine drug intake: multiple round punctuate brown-greyish pigmented areas located on the left leg (a,b) and lower back (c) regions.*

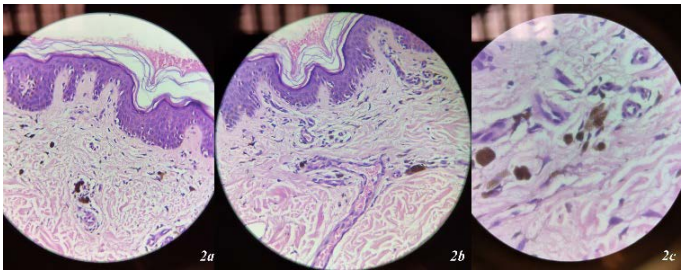

Figure 2a-c. *Fixed drug eruption, pigmented stage: post-inflammatory hyperpigmentation with melanophages in the dermis, a few lymphocytes in the epidermis and a hint of basal cell vacuolation.*

The patient was informed of the possible triggering factors for his condition – the two antihistamines taken for his allergic rhinitis with the parallel intake of ibuprofen. Epicutaneous patch testing in a pigmented lesion was recommended, which he later on declined. An alternative screening with an oral provocative test was suggested.

The patient took his medications daily which resulted in the erythematous ring around the lesions. The hyperpigmentation increased after the oral intake of the medications. He was advised to switch medications with another antihistamine and non-steroidal anti-inflammatory drugs without data in the literature for a possible adverse drug reaction.

A treatment therapy was prescribed: esomeprazole 40 mg once daily for 30 days, clobetasol propionate 15gr two times a day applied only on the lesions and dexamethasone 4 mg according to a scheme. The patient reported a good clinical response.

Discussion.

Fixed drug eruption (FDE) was first described by Bourns in 1889 [6] but the term "éruption érythémato-pigmentée fixe" was introduced by Brocq in 1894 [7]. He described the condition as "ovaly shaped pigmented edematous plaques, variation in size, occurring in different parts of the body" [8-10].

The definition of the condition itself suggests that a rash will occur every time a certain medication is taken [10]. With the increased intake of the drug, the lesions can grow in size and number [11]. The lesions are very distinctive, erythematous, oval, or round, hyperpigmented with location preferences in the areas of the genitals, trunk, and extremities [12]. Some patients may experience local itching and/or burning [11]. The acute inflammation phase results in post-inflammatory hyperpigmentation which can persist for a very long period of time [10]. The development period of the lesion can vary but typically manifests somewhere between 48h and two weeks following the initial drug exposure [10,13]. With each drug administration the lesions appear as prior eruptions in the same location as the previous one(s) and/or can spread to additional previously not involved areas [13,14].

FDE typically develops in adults between 35 and 60 without gender prevalence [15,16].

The pathogenesis of the condition is mediated by CD8+ memory T cells that can be found in the lesional epidermis [17]. After the drug administration these cells migrate in the upper layers of the epidermis and eventually receive the phenotype of a natural killer cell, producing cytotoxic molecules [17]. This results in epidermal necrosis [18]. Meanwhile the CD4+ regulatory T cells also migrate to the epidermal layer restraining the damage caused by the CD8+ T cells [17]. This action can explain the self-restricting nature of FDE [18]. After the acute inflammatory phase, the CD8+ T cells regain their original state and remain for many years in the basal layer of the epidermis [17].

In the existing data, FDE can be caused by a various type of drug substances such as antibiotics (amoxicillin, levofloxacin, doxycycline), paracetamol, non-steroidal anti-inflammatory drugs (NSAIDs) such as naproxen, ibuprofen, antihistamines, and others [13,19-21]. In some cases, selective hypersensitivity to naproxen may develop but the patient's tolerance to other propionic acid NSAIDs can remain [21]. FDE followed by antiepileptics, trimethoprim/sulfamethoxazole, metamizole, acetylsalicylic acid, cotrimoxazole, metronidazole, belladonna, griseofulvin, allopurinol, albendazole and others have also been reported [11,15,20,22].

H1-antihistamines are used in the treatment of different varieties of allergic conditions, such as allergic rhinitis [23,24]. Fixed drug eruption can occur after oral intake of Cetirizine, Levocetirizine and Hydroxyzine [23,24]. The first eruptions can develop within a few hours after the drug administration [23]. Our patient was taking two antihistamines for his allergic rhinitis and NSAIDs due to different occasions. In this case scenario an oral test provocation could be used in order to distinguish the drug culprit [23]. However, there is a risk of a strong drug reaction and therefore a patch test in residual lesion is a more suitable and less invasive alternative [23]. It can even show a cross-reaction between different antihistamines of the same family [24]. In case of a cross-reaction the patient should avoid these antihistamines and switch to an alternative [25]. A case of a levocetirizine-induced fixed drug eruption with cross-reactions with cetirizine and hydroxyzine (other piperazine derivatives) was reported [25]. In case of an allergy the patient could be switched to fexofenadine (another antihistamine without existing data for a possible FDE) [25]. There are cases in the literature data for orally induced FDE after the administration of Loratadine [26].

Acetylsalicylic acid is a common drug used for headaches and other medical conditions [27]. A suggestive genetic link can be found in a case of a FDE in a mother and her son following acetylsalicylic acid [22]. The lesions usually resolve after discontinuing the responsible drug with a post-inflammatory hyperpigmentation [27]. As additional treatment it can be prescribed oral H1-antihistamines and a short course of steroids in more severe cases [27].

Ibuprofen is a NSAID (in the same group as naproxen and ketoprofen) typically used in treating fever, inflammatory disease, mild-to-moderate pain, etc. [28]. It is commonly used in everyday life therefore its drug reactions are well-studied and documented [28]. Fixed drug eruptions following the administration of Ibuprofen are also very commonly reported [29]. Selective adverse reactions due to ibuprofen in children are reported with tolerance to acetylsalicylic acid and acetaminophen [30].

FDE lesions are often very distinguished and noticeable [31]. However, there are some non-pigmented variations, such as multifocal fixed drug eruptions, which can cause difficulty in diagnosing the condition, especially when a medication history is absent [31].

Rarely FDE lesions can develop without the presence of a certain drug [32,33]. It can manifest after specific food intake such as nuts, seafood, lentils, some fruits, tonic water and etc. [32,33]. In this case the condition is called Fixed Food Eruption (FFE) [32,33]. Clinicians should consider it when medication history is absent.

Drug eruptions are one of the most common inflammatory skin diseases biopsied by the histopathologist [34]. Differential diagnosis based on the histological finding can include other cutaneous eruptions such as Stevens-Johnson syndrome/toxic

epidermal necrolysis(SJS/TEN), erythema multiforme and other conditions [34]. Clinically fixed drug eruption can be easily mistaken for an acquired dermal melanocytosis [35-37]. Dermal melanocytosis are a group of conditions in which melanocytes are presented in the dermis resulting in a greyish pigmentation [35]. The condition appears in childhood or early adulthood and can rarely evolve in a malignant lesion [35]. It is suggested that UV radiation, hormonal factors, trauma, and other risk factors can activate the melanin-producing pathway resulting in a dermal melanocytosis [35,38].

As mentioned briefly above there are several methods that can be used in order to distinguish the disease from the others [10]. The punch biopsy is a method that can assure a definitive diagnosis [34]. Oral provocation test has a higher sensitivity than the patch test, but it is rarely used today [20]. Contraindication for performing the test is generalized FDE since it can initiate the condition [39]. However, if performed, it must be done under medical supervision [39]. On the other hand, topical provocation such as the patch test is considered a safer alternative when diagnosing the condition [39]. It remains a simple method that can be used in cases when multiple drugs are suspected [39]. Limitations occur with medications such as antibiotics and allopurinol due to the lack of reactivity – only 40% positive reaction rate [39,40]. A less commonly used test is the lymphocyte transformation test (LTT) [10,41]. It includes taking the patient's blood mononuclear cells with the suspected drug and measuring the proliferation rate compared to the patient's unexposed peripheral blood mononuclear cells [10,41,42]. Although the test is not a common practice it can indicate drugs such as allopurinol, fluconazole and other medications causing FDE [10,41-43]. The prognosis of a fixed drug eruption is considered often really good [44]. In the majority of the patients the lesions will resolve after discontinuing the drug [44], [45]. However, the post-inflammatory hyperpigmentation can remain permanent [44].

Conclusion.

We present a case of a 46-year-old male with a biopsy-confirmed multifocal fixed drug eruption after oral administration of two antihistamines and NSAIDs. The condition can be confused with other cutaneous eruptions due to the similar histology and clinical picture. Therefore, we as clinicians must carefully interpret the patient's history and clinical picture.

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