

observed several new large dark purple ecchymosis on the trunk and limbs. Routine blood test and blood coagulation showed no changes. With treatment following the recommended zinc dosage for 5 days, the ecchymosis on the trunk and limbs subsided, the ulcer healed, and the perineal erythema receded (Figure 2).

Causes of acquired zinc deficiency include inadequate intake, parenteral nutrition, pregnancy and lactation, extensive burns, exfoliative dermatitis, intestinal malabsorption syndromes, cystic fibrosis, alcoholism, HIV infection, malignancies, and chronic renal disease.¹ Clinical manifestations may present as psoriasiform, annular, or crusted plaques, with decreased hair and nail growth.² Zinc levels either in plasma or serum are not reliable indicators for establishing a diagnosis of zinc deficiency. Normal values may be obtained in the presence of subclinical zinc deficiency. Therapeutic response in suspected cases remains the gold standard for diagnosis.³

The diagnosis of acquired zinc deficiency is often missed. In the present case, based on the fungus culture of *Candida albicans*, the patient was misdiagnosed with candidal intertrigo. The lesion showed no improvement with treatment based on antifungal shampoo and cream. Combining the history of fasting and perineal erythema, we changed treatment regimen to zinc based on the experience we had with another adult patient with acquired zinc deficiency due to long-term parenteral nutrition.⁴ The recommended dosage of zinc is 2mg/kg/d, but the actual dosage is usually below that. In the present and previous cases, the average dosage was 0.68mg/kg/d and 0.12mg/kg/d, respectively.^{4,5} Both patients responded well to treatment.

Our cases have all been inpatients, most of them with a history of parenteral nutrition or diarrhea. The main complaint reported was perineal erythema. On a detailed physical examination, acral erythema and paronychia could also be observed. Although our patients' zinc levels were normal, they all responded to zinc therapy. Inadequate dosing of zinc only partially improved the lesions. Increasing the dose led to the full resolution of the lesions, which underscores the importance of sufficient doses to confirm the diagnosis and to completely resolve the lesions. □

REFERENCES

1. Kumar P, Lal NR, Mondal AK, Mondal A, Gharami RC, Maiti A. Zinc and skin: A brief summary. *Dermatol Online J.* 2012;18:1.
2. Seshadri D, De D. Nails in nutritional deficiencies. *Indian J Dermatol Venereol Leprol.* 2012;78:237-41.
3. Alhaj E, Alhaj N, Alhaj NE. Diffuse alopecia in a child due to dietary zinc deficiency. *Skinmed.* 2007;6:199-200.
4. Kang Daoxian, Zhou Kaihua, Zou Qing, Wang Lu. A case of Adult acquired zinc deficiency due to long-term parenteral nutrition (In Chinese). *Clin J deam Venereol.* 2015;29:502-3.
5. Saritha M, Gupta D, Chandrashekar L, Thappa DM, Rajesh NG. Acquired zinc deficiency in an adult female. *Indian J Dermatol.* 2012;57:492-4.

MAILING ADDRESS:

Daoxian Kang
NO.108 Daosangshu Street
Chengdu
Sichuan Province, China
E-mail:kdx198781@126.com

How to cite this article: Kang D. Acquired zinc deficiency in an adult patient diagnosed by zinc therapy. *An Bras Dermatol.* 2017;92(2):290-1.

Tretinoin peeling: when a reaction is greater than expected*

Geraldo Magela Magalhães^{1,2} Dulcilea Ferraz Rodrigues²
Edmundo Rocha de Oliveira Júnior² Fernanda Arêas Alves Ferreira²

DOI: <http://dx.doi.org/10.1590/abd1806-4841.20176728>

Dear Editor,

Tretinoin is a superficial peeling agent that has been used for a few years, with several clinical indications and low adverse effect levels.¹ It is quite popular in Brazil due to its effectiveness, safety and low cost. There are few studies on tretinoin peeling in the literature.² The ideal concentration is still undefined, therefore the use of concentrations between 1% and 10% is common.^{1,2} References have been made for daily use at 0.25% concentrations, with safe and effective effects in photoaging treatment, by reason of its rapid skin retinization, with similar results to those of superficial peelings.³ For melasma treatment, reports have been made that the 5% concentration is as safe and effective as the 10% concentration for the improvement of MASI (melasma area severity index) and MelasQoL (*Melasma Quality of Life Scale*).² Complications are rare, and the most frequent ones are temporary erythema and scaling post-peeling.²

A 39-year-old woman's case is reported. She was monitored at the Dermatology Clinic to treat melasma, using 4% hydroquinone at night and 16% vitamin C, combined with broad-spectrum photo-protection in the morning. Afterwards, a 5% tretinoin peeling in hydroalcoholic solution containing propylene glycol was performed, and left for six hours. In less than 24 hours, the patient exhibited itching, accentuated swelling, and erythema on the entire face, with vesicles and blisters being formed in the chin area (Figures 1 and 2). The patient was treated with 40 mg of prednisone a day for five days, 500 mg of azithromycin a day for three days, and 0.05% desonide cream twice a day for 10 days. Progress was favorable, and full recovery occurred after seven days (Figure 3). The melasma did not worsen and there was no post-inflammatory hyperpigmentation. Patient presented a history of psoriasis vulgaris in remission, atopy, and exaggerated reaction to insect bites. In addition, she reported having allergic reactions to products with nickel and intolerance to products containing tretinoin, manifested by erythema and scaling. A patch testing was performed (Brazilian

Received on 09.05.2016

Approved by the Advisory Board and accepted for publication on 11.07.2016

* Work developed at the Dermatology Clinic at Santa Casa de Misericórdia de Belo Horizonte, Belo Horizonte, MG, Brazil.

Financial support: None.

Conflict of interests: None.

¹ School of Medicine, Universidade Federal de Ouro Preto (UFOP), Ouro Preto, MG, Brazil.

² Dermatology Clinic, Santa Casa de Misericórdia de Belo Horizonte, Belo Horizonte, MG, Brazil.

©2017 by Anais Brasileiros de Dermatologia



FIGURE 1: Accentuated face swelling and erythema



FIGURE 2: Details of vesicles and blisters in the chin area



FIGURE 3: Full improvement of the unexpected reaction to tretinoin peeling

standard tray including cosmetics) and, at the 96-hour reading, it was positive for thimerosal (1+) and nickel sulfate (1+). Tretinoin was tested at 0.005% and 0.01% in an alcohol solution and 0.05% in vaseline. The test was positive for the 0.05% concentration only, with a reaction intensity of 1+ in both readings: at 48 and at 96 hours.

The occurrence of a high intensity and a rapid onset of a dermatitis condition, with the formation of vesicles and blisters after the tretinoin peeling is still a relatively unknown event. No similar case has been reported in prior literature. Standardization of tretinoin patch testings is defective due to the irritating nature of ret-

inoic acid. Different tretinoin concentrations were used in some case reports.^{4,5} Despite its exuberance, the onset of this condition took place before 24 hours after the peeling application, and tretinoin positivity was only observed at the highest concentration, which maintained the same intensity of 1+ at the 48- and 96-hour readings, which suggests irritant contact dermatitis. Patient has been under dermatology follow-up, using topical medications, and submitted to salicylic acid peeling at 30%, without intercurrent events. Despite the intense adverse reaction, patient progressed to full recovery. □

REFERENCES

1. Cucé LC, Bertino MC, Scattoni L, Birkenhauer MC. Tretinoin peeling. *Dermatol Surg.* 2001;27:12-4.
2. Magalhães GM, Borges MFM, Queiroz ARC, Capp AA, Pedrosa SV, Diniz MS. Estudo duplo-cego e randomizado do peeling de ácido retinóico a 5% e 10% no tratamento do melasma: avaliação clínica e impacto na qualidade de vida. *Surg Cosmet Dermatol.* 2011;3:17-22.
3. Kligman DE, Sadiq I, Pagnoni A, Stoudemayer T, Kligman AM. High-strength tretinoin: a method for rapid retinization of facial skin. *J Am Acad Dermatol.* 1998;39:S93-7.
4. Tosti A, Guerra L, Morelli R, Piraccini BM. Contact dermatitis due to topical retinoic acid. *Contact Dermatitis.* 1992;26:276-7.
5. Nordqvist BC, Mehr K. Allergic contact dermatitis to retinoic acid. *Contact Dermatitis.* 1977;3:55-6.

MAILING ADDRESS:

Geraldo Magela Magalhães
Av. do Contorno, 4747 - Sala 904
Funcionários
30110-921 - Belo Horizonte - MG
Brazil
E-mail: germagela@ig.com.br

How to cite this article: Magalhães GM, Rodrigues DF, Oliveira Júnior ER, Ferreira FAA. Tretinoin peeling: when a reaction is greater than expected. *An Bras Dermatol.* 2017;92(2):291-2.

Inflammatory mixo-hyaline tumor of distal extremities - a rare sarcoma simulating benign diseases*

Elaine Crystine Vieira de Paiva¹ Natália Tomaz Bezerra¹
José Telmo Valença Júnior² Antônio Renê Diógenes de Sousa¹

DOI: <http://dx.doi.org/10.1590/abd1806-4841.20175158>

Received on 20.09.2015

Approved by the Advisory Board and accepted for publication on 08.08.2016

* Work conducted in the Dona Libânia Dermatology Center, Fortaleza, CE, Brasil.

Financial support: None.

Conflict of interests: None.

¹ Department of Dermatology, Centro de Dermatologia Dona Libânia, Fortaleza, CE, Brazil.

² - Department of Pathology, Universidade Federal do Ceará (UFC), Fortaleza, CE, Brazil.