

cause ulcer, bleeding, and damage to surrounding normal tissues, the urethral orifice would bleed during the treatment due to the deficiency of coagulant factor VIII, and his wound would be difficult to heal. Therefore, we applied 5-Aminolevulinic Acid Photodynamic Therapy to treat the condyloma acuminata at his urethral orifice, with no ulcer, bleeding, or infection observed during the treatment. During the 6-month follow-up examination, no recurrence or scar was found; the skin was smooth; and the condyloma acuminata lesion was totally removed. (Figure 2A and 2B). □

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Acquired zinc deficiency in an adult patient diagnosed by zinc therapy*

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Dear Editor,

This is the report of a 67-year-old female patient presented with a history of perineal erythema and erosions for more than 14 days. In the last year, she was repeatedly hospitalized for chronic obstructive pulmonary disease, chronic pulmonary heart disease, and

type 2 respiratory failure. During each hospitalization, she was given the following treatment: mechanical ventilation, semi-liquid diet, compound amino acid, and dipeptide medium/long-chain lipid emulsion injection for intravenous nutrition. Culture of the perineal region grew *Candida albicans*. Physical examination showed perineal erythema and erosion with creamy white discharge. The preliminary diagnosis was candidal intertrigo. The condition was treated with 1:20 betagen solution hydropathic compress and topical active ingredients for 1 week. The condition worsened with expansion of the perineal erythema and ulceration of part of the erosion (Figure 1). The tongue and side palate showed soybean-sized ulcers with erythema. The combination of perineal erythema and upper extremity erythema gave a final diagnosis of acquired zinc deficiency. Alkaline phosphatase level was normal, as well as serum zinc level. A nutritionist recommended 10 ml multitrace element injection (each 10 ml contains 6.5 mg of zinc) twice a day and gluconate solution 40 ml daily (each 10 ml contains 6.5 mg of zinc). However, we were only able to give the patient the multitrace elements injection and zinc gluconate 10 ml solution once a day because of the medicine cost and the presence of mouth ulcers. After 2 weeks of treatment, the ulcer became shallow and the discharge decreased. However, we



FIGURE 1: Papules and erythema with creamy white discharge on the vulva



FIGURE 2: Resolved erythema and secretion on the vulva, after treatment with zinc

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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. □

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Tretinoin peeling: when a reaction is greater than expected*

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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

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