with Pityrosporum infection [1, 2], thyroid disease [1], Cushing's syndrome [1], acanthosis nigricans, impaired glucose tolerance or hyperinsulinemia [2] has been suggested. Also, there is evidence that CRP could be due to 'a genetically determined keratinization defect' [2]. Treatment includes retinoids, selenium sulfide, ketoconazole, erythromycin and tetracycline [1, 2].

The vitamin D_3 analogue calcipotriol has been shown to be a potent regulator of cell differentiation and an inhibitor of cell proliferation in human keratinocytes [4–8]. Calcipotriol has also been found effective in reducing markers of abnormal keratinization (expression of keratin 16) [6, 7]. At present, calcipotriol ointment is only licensed for use in chronic plaque psoriasis. However, it could be of benefit in certain conditions like pityriasis rubra pilaris [9].

Our observation supports the view that CRP could be regarded as a disease of keratinization and that calcipotriol ointment could be of use in the management of the disease. The major concern about calcipotriol is its effect on calcium metabolism. At doses of 100 g/week, calcipotriol is generally considered to be safe with respect to any changes in calcium levels [5, 8]. However, hypercalcemia was reported in a case of extensive psoriasis treated with less than 100 g calcipotriol/week [10].

In our case, serum-adjusted calcium level was slightly increased, but remained in the normal range.

References

1 Waisman M: Cutaneous papillomatosis: in Demis DJ, Dahl MV, Smith EB, Thiers BH (eds): Clinical Dermatology. Philadelphia, Harper & Row, 1987, vol 1–42, pp 1–5.
2 Hirokawa M, Matsumoto M, Iizuka H: Confluent and Reticulated Papillomatosis: A case with concurrent acanthosis nigricans associated with obesity and insulin resistance. Dermatology 1994;188:148–151.
3 Harrison PV, Stollery N: Disseminated superficial actinic porokeratosis responding to calcipotriol. Clin Exp Dermatol 1994;19:95.
4 Bagot M, Charue D, C. Leses M, Pamphile R, Revuz J: Immunosuppressive effects of 1,25-dihydroxyvitamin D_3 and its analogue calcipotriol on epidermal cells. Br J Dermatol 1994;130:424–431.
5 Kragballe K: Treatment of psoriasis with calcipotriol and other vitamin D analogues. J Am Acad Dermatol 1992;27:1001–1008.
6 Gerritsen MJP, Rulo HFC, Van Vlijmen-Willems I, Van Erp PEJ, Van de Kerkhof PCM: Topical treatment of psoriatic plaques with 1,25-dihydroxyvitamin D_3: A cell biological study. Br J Dermatol 1993;128:666–673.
7 Gerritsen MJP, Boezeman JBM, Van Vlijmen-Willems IMJJ, Van De Kerkhof PCM: The effect of tacalcitol(1,24(OH)$_2$D$_3$) on cutaneous inflammation, epidermal proliferation and keratinization in psoriasis: A placebo-controlled double-blind study. Br J Dermatol 1994;131:57–63.
8 Bruce S, Epinette WW, Funicella T, Ison A, Jones EL, Loss Jr. R, McPhee ME, Whitmore C: Comparative study of calcipotriene (MC 903) ointment and fluocinonide ointment in the treatment of psoriasis. J Am Acad Dermatol 1994;31:755–759.
9 Van De Kerkhof PCM, Steijlen PM: Topical treatment of pityriasis rubra pilaris with calcipotriol. Br J Dermatol 1994;130:675–678.
10 Russel S, Young MJ: Hypercalcemia during treatment of psoriasis with calcipotriol. Br J Dermatol 1994;130:795–796.

Dermatology 1995;191:342–343

Nail Pigmentation due to Roxithromycin

G. Dawn
A.J. Kanwar
S. Dhar

Department of Dermatology, Venereology and Leprology, Postgraduate Institute of Medical Education and Research, Chandigarh, India

Key Words
Nail pigmentation • Roxithromycin

Roxithromycin, the first of a new generation of macrolides, has an antibacterial spectrum similar to that of erythromycin for typical and atypical acute community-acquired infections. However, it has improved pharmacokinetics with proven efficacy, and better tolerance and compliance. The drug has been frequently used in infections of the upper and lower respiratory tract, ear, teeth, skin and soft tissue and genitourinary system [1–5]. The major adverse effects include nausea, abdominal pain and diarrhea. These are however, reduced in intensity and frequency as compared to other macrolides. Other side effects which may occasionally be seen are dyspepsia, flatulence, constipation, dizziness, pruritus, urticaria and skin rashes [4, 5]. We report a patient who developed nail pigmentation following roxithromycin.

A 23-year-old male presented with pigmentation of finger nails of 2 months duration. The patient revealed that he had an episode of upper respiratory tract infection (URTI) 3 months before, for which roxithromycin, tablet 150 mg twice daily, was prescribed. He initially responded but as symptoms persisted, he continued the drug for another 2 weeks. On stopping the drug, he noticed a slight brownish discoloration of both thumb nails. He had a further episode of URTI for which he again took roxithromycin for 2 weeks. At that time, he noticed further darkening of pigmentation over both thumb

Dr. Amrinder J. Kanwar, Additional Professor
Department of Dermatology, Venereology and Leprology
Postgraduate Institute of Medical Education and Research
Chandigarh 160012 (India)

1018–8665/95/1914–0342
$ 8.00/0

nails; in addition he also noted fresh pigmentation over other fingernails. The patient denied any history of other systemic or local medications in the recent past. General and physical examinations were otherwise normal. Examination of the nails revealed a light to dark brown pigmentation affecting all the ten finger nails, the toe nails were spared. The pigmentation was diffuse and much more pronounced on the thumb nails. The nail plates and nail folds were normal. There was no pigmentation (localized or diffuse) over the rest of the body. A potassium hydroxide (KOH) preparation from the nails did not reveal any fungus on smear, and culture was negative for fungus or bacteria. The patient was advised not to take roxithromycin in the future. Follow-up of the patient at 3 months revealed pigment lightening while at 6 months nail pigmentation had disappeared totally.

A close temporal link between onset and aggravation of the nail pigmentation and administration of roxithromycin suggests that the pigmentation was due to roxithromycin, which is further corroborated by complete disappearance of pigmentation on stopping the drug over next 6 months. A detailed history and examination reasonably ruled out systemic and local diseases and other factors producing nail pigmentation [6]. To the best of our knowledge nail pigmentation due to roxithromycin has not been mentioned in the literature so far.

References

1 Young RA, Gonzalez JP, Sorkin EM: Roxithromycin a review of its antibacterial activity, pharmacokinetic properties and clinical efficacy. Drugs 1989;37:8–14.
2 Nilsen OG: Comparative pharmacokinetics of macrolides. J Antimicrob Chemother 1987;20 (suppl B):81–88.
3 McLean A, Sutton JA, Salmon J, Chatelet D: Roxithromycin: Pharmacokinetic and metabolism study in human. Br J Clin Pract 1988;42 (suppl 55): 52–53.
4 Bazet MC, Blanc F, Chumdermpudetsuk S, Fiessinger S, Kafetzis D, Isa J, Go A Le, Renault M: Roxithromycin in the treatment of pediatric infections. Br J Clin Pract 1988;42 (suppl 55):117–118.
5 Agache P, Amblard P, Moulin G, Barrière H, Texier L, Beylot C, Bergoend H: Roxithromycin in skin and soft tissue infections. J Antimicrob Chemother 1987; 20(suppl B): 153–156.
6 Baden HP, Kvedar JC: Nails; in Fitzpatrick TB, Eisen AZ, Wolff K, Fradberg IM, Austen K (eds): Dermatology in General Medicine, ed 4. McGraw-Hill, Health Profession Division, New York, 1993, vol 1, pp 704.

Dermatology 1995;191:343–344

C. Willa-Craps
P. Elsner
G. Burg

Dermatologische Klinik,
Universitätsspital Zürich, Switzerland

Olaquindox-Induced Persistent Light Reaction Treated by *Escherichia coli* Filtrate (Colibiogene®)

Key Words
Olaquindox • Persistent light reaction • Colibiogene

Olaquindox is an antibiotic substance widely used as a food additive in piglet feeding. We describe a patient showing a persistent light reaction caused by olaquindox, successfully treated with an *Escherichia coli* filtrate (Colibiogene®).

A 63-year-old farmer had suffered from eczema on light-exposed areas for 3 years. His work consisted in cheese production and piglet farming, using so-called 'medicated food'.

Patch tests with Trolab allergens (Hermal Kurt Herrmann) were performed according to the recommendations of the International Contact Dermatitis Research Group, testing standard series, antimicrobials and preservatives, vehicles and emulsifiers, medicaments and piglet food components, including olaquindox.

There was a positive reaction to the olaquindox-containing food and olaquindox itself, aggravated by UV exposure in the photo patch test. There was also a diminished UV tolerance especially to UVA with erythema even at the lowest dose of 1.5 J/m^2, consistent with the diagnosis of a persistent light reac-

Peter Elsner, MD
Department of Dermatology
University of Zurich
Gloriastrasse 31
CH–8091 Zurich (Switzerland)

1018–8665/95/1914–0343
$ 8.00/0