## **Confluent and reticulated papillomatosis: a novel onset due to** spindle-inhibiting and alkylating chemotherapeutic agents

### Olivia R. Negris, M.A.,<sup>1</sup> Julie M. Bittar de la Cruz, M.D.,<sup>2</sup> Vida Ehyaee, M.D.,<sup>3</sup> Kyle T. Amber, M.D.,<sup>2,4</sup> <sup>1</sup>Rush Medical College, <sup>2</sup> Department of Dermatology, <sup>3</sup>Department of Pathology, <sup>4</sup>Department of Internal Medicine

#### Introduction

Confluent and reticulated papillomatosis (CARP) is a rare disease of the epidermis due to disordered keratinization that has a chronic course.

CARP most often manifests as multiple subcentimeter brown to hyperpigmented papules that have scaling, hyperkeratosis, or even atrophy, and may coalesce to form plaques. CARP has not been postulated to arise as a result of medications.

We report a novel case of CARP which developed in the context of a spindle-inhibiting chemotherapeutic agent and the alkylating chemotherapeutic agent use.

#### **Case Presentation**

A 65-year-old Black female presented with concern for new hyperpigmented lesions that developed over the past year.

- PMH: of primary adenocarcinoma of the lower lobe of the left lung, status post resection one year prior and seven cycles of paclitaxel and carboplatin chemotherapy

- Physical Exam: numerous nontender, rough, dark papules of varying sizes but consistent pattern are appreciated across the torso and face

- Histopathology: epidermal thinning and papillomatosis, increased pigmentation of the basal layer without an increase in the number of melanocytes, rare scattered dermal melanophages

- Diagnosis: CARP

- Treatment: Minocycline 100 mg BID, with significant improvement at 3 months

#### Skin Findings and Microscopic Evaluation

Figure 1: Left with skin exam findings at initial visit demonstrating extensive hyperpigmented papules coalescing to reticulate plaques across the trunk and arms. Interestingly, there is notable flexural sparing. Right with skin exam findings status-post 3 months of 100 mg BID minocycline therapy.



Figure 2: Histopathology of CARP demonstrating epidermal thinning and papillomatosis, increased pigmentation of basal layer without an increase in number of melanocytes, and rare scattered dermal melanophages.



#### Conclusion

This is the first case to describe the onset of CARP in the context of the spindle-inhibiting chemotherapeutic agent, paclitaxel, or the alkylating agent, carboplatin. This case report further confirms the utility of minocycline in the treatment of CARP.



#### References

- 0387.2006.06023.x

- Dermatol 2005; 22: 331–333.

# RUSH



Gougerot H, Carteaud A. Papillomatose pigmentée innominée. Bull Soc Fr Dermatol Syphilid 1927; 34: 719–721. 2. Löwenstein M, Metzler G, Röcken M, Schaller M. (2006), Confluent and reticulated papillomatosis Gougerot-Carteaud successfully treated with minocycline. JDDG: Journal der Deutschen Dermatologischen Gesellschaft, 4: 556-558. https://doi.org/10.1111/j.1610-

3. Davis MD, Weenig RH, Camilleri MJ. Confluent and reticulate papillomatosis (Gougerot-Carteaud syndrome): a minocyclineresponsive dermatosis without evidence for yeast in pathogenesis. A study of 39 patients and a proposal of diagnostic criteria. Br J Dermatol. 2006;154(2):287-293. doi:10.1111/j.1365-2133.2005.06955.x

Baden HP. Familial cutaneous papillomatosis. Arch Dermatol. 1965;92(4):394-395.

5. Henning JP, de Wit RF. Familial occurrence of confluent and reticulated papillomatosis. Arch Dermatol. 1981;117(12):809-810. 6. Lim JH, Tey HL, Chong WS. Confluent and reticulated papillomatosis: diagnostic and treatment challenges. Clin Cosmet Investig Dermatol. 2016;9:217-223. Published 2016 Aug 25. doi:10.2147/CCID.S92051

7. Aydogan I, Kavak A, Parlak AH, Alper M, Annakkaya AN, Erbas M. (2005). Persistent serpentine supravenous hyperpigmented eruption associated with docetaxel. Journal of the European Academy of Dermatology and Venereology, 19(3), 345-347. 8. Haynes D, Ortega-Loayza AG. (2020). Adverse cutaneous reactions to chemotherapeutic drugs. Clinics in Dermatology, 38(6), 712-

9. Stein JA, Shin HT, Chang MW. Confluent and reticulated papillomatosis associated with tinea versicolor in three siblings. Pediatr