

## COMPELLING COMMENTS

### Generalized Eruptive Keratoacanthomas of Grzybowski and the Sign of Zorro

Philip R. Cohen, MD<sup>1,2</sup>

<sup>1</sup> Department of Dermatology, University of California, Davis Medical Center, Sacramento, CA

<sup>2</sup> Touro University California College of Osteopathic Medicine, Vallejo, CA

I read with interest the excellent case report by Taylor et al.<sup>1</sup> They described not only eruptive keratoacanthomas, but also well-differentiated squamous cell carcinomas and prurigo nodules in a 59-year-old man with chronic kidney disease. They also shared the challenges encountered with the diagnosis and management of their patient's skin lesions.

Generalized eruptive keratoacanthomas of Grzybowski is a non-hereditary onset of hundreds to thousands of small keratoacanthomas that can appear not only on the skin but also the mucous membranes of the eyes and mouth. Eyelid tumors may cause ectropion and lesions may occur on the buccal mucosa, lips, and tongue.<sup>1-5</sup>

Masked facies, also referred to as hypomimia, is most associated with Parkinson disease; however, this phenomenon has also been observed in other conditions (**Table 1**).<sup>1-6</sup> In addition, some patients with generalized eruptive keratoacanthomas of Grzybowski present with masked facies. These can either present as sclerotic mask-like facies (or scleroderma-like masked facies) without any facial expression or they can appear as confluent

individual keratoacanthomas that essentially cover the entire face like a mask.<sup>3-5</sup>

Importantly, another distinctive--and possibly pathognomonic--salient feature of generalized eruptive keratoacanthomas of Grzybowski is the sign of Zorro.<sup>2</sup> Zorro--Don Diego de la Vega--is a fictional Spanish nobleman who defended the people by behaving as an outlaw against those who acted against them. He wore a black mask that covered the areas around his eyes and the bridge of his nose to conceal his identity.<sup>2</sup>

The sign of Zorro, in association with generalized eruptive keratoacanthomas of Grzybowski, was initially described in 2014.<sup>2</sup> It represents the prominent appearance of multiple individual and confluent keratoacanthomas predominantly restricted to the periorbital region--including the eyebrows, eyelids, and even extending to include the cutaneous and mucosal conjunctiva (**Figure 1A**).<sup>2,5</sup> Since the distribution of keratoacanthomas presents like a mask covering these affected areas, this unique feature has more recently also been referred to as the mask of Zorro.<sup>5</sup>

**Table 1.** Clinical differential diagnosis of masked facies

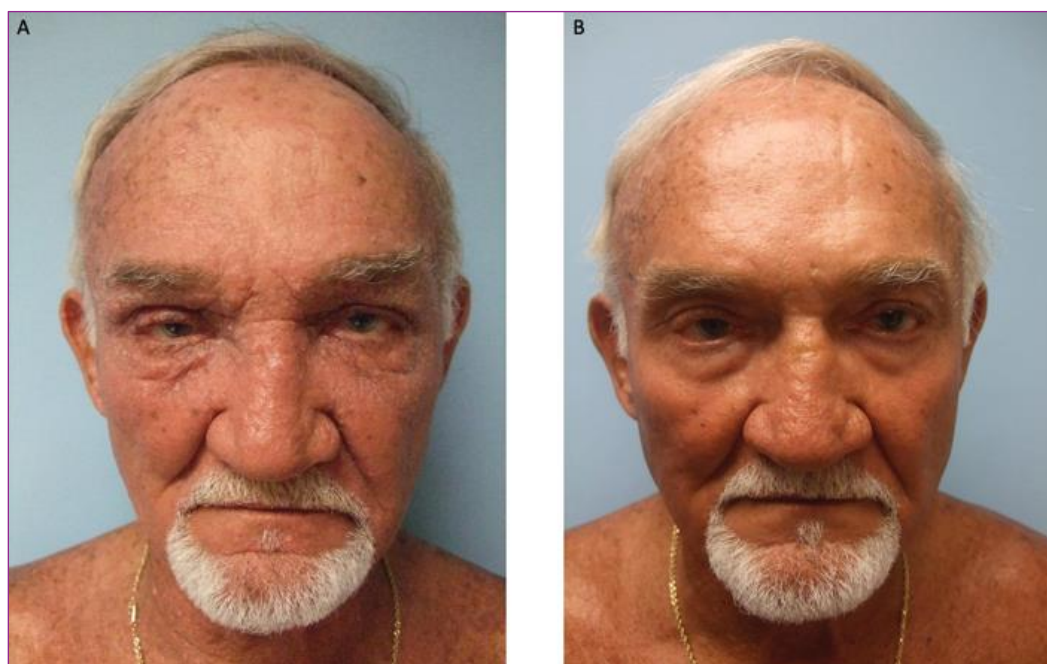
---

Carbon monoxide poisoning  
 Fragile X-associated tremor/ataxia syndrome (FXTAS)  
 Generalized eruptive keratoacanthomas of Grzybowski (GEKG)  
 Manganism<sup>a</sup>  
 Osmotic demyelination syndrome<sup>b</sup>  
 Pantothenate-kinase-associated neurodegeneration (PKAN)  
 Parkinson disease  
 Progressive supranuclear palsy (PSP)  
 Shy-Drager syndrome

---

<sup>a</sup>This is also referred to as manganese-associated neurotoxicity.

<sup>b</sup>This was associated with extrapontine myelinolysis and reversible Parkinson disease after hyponatremia correction in a woman with a pituitary adenoma and hypopituitarism.



**Figure 1.** Generalized eruptive keratoacanthomas of Grzybowski-associated sign of Zorro. A 68-year-old man, who had completed treatment for metastatic colon cancer six months earlier, presented with hundreds of pruritic small (1 to 5 millimeters) erythematous papules with a central umbilication and a horny, keratotic plug located on his head and neck, chest and abdomen, and arms and legs. He had a positive sign of Zorro since the periorbital distribution of keratoacanthomas on his face--around his eyes and on the bridge of his nose--mimicked the mask of the fictional character Zorro (**A**). Acitretin was started; after the initial dose of 10 milligrams daily was increased to 40 milligrams daily, all the lesions eventually completely resolved. His mask of Zorro was no longer present at a follow-up visit one month after stopping the acitretin treatment that he received for eight months (**B**). Some of the details of this patient have previously been reported.<sup>2</sup>

Oral retinoids are often used in the initial management of generalized eruptive keratoacanthomas of Grzybowski.<sup>1-5</sup> Therapy may not only require achieving the optimal dose to prevent new keratoacanthomas and progression of current tumors, but also several months of treatment to achieve complete resolution of all lesions and maintain clearance without new neoplasms developing.<sup>2,4</sup> In conclusion, when a patient with generalized eruptive keratoacanthomas of Grzybowski has a positive sign of Zorro, successful intervention of the condition is characterized by disappearance of Zorro's mask (**Figure 1B**).<sup>2</sup>

**Conflict of Interest Disclosures:** None

**Funding:** None

**Corresponding Author:**

Philip R. Cohen, MD  
10991 Twinleaf Court  
San Diego, CA 92131-3643  
Email: mitehead@gmail.com

6. Hou X, Zhang Y, Wang Y, Wang X, Zhao J, Zhu X, Su J. A markerless 2D video, facial feature recognition-based, artificial intelligence model to assist with screening for Parkinson disease: development and usability study. *J Med Internet Res*. 2021;23(11):e29554.

**References:**

1. Taylor M, Pham A, Clausen M, Darabi K. Eruptive keratoacanthoma in a 59-year-old female with chronic kidney disease: a case report and review of treatment approaches. *SKIN J Cutan Med*. 2023;7(3):764-770.
2. Anzalone CL, Cohen PR. Generalized eruptive keratoacanthomas of Grzybowski. *Int J Dermatol*. 2014;53(2):131-136.
3. Haas N, Schadendorf D, Henz BM, Fuchs PG. Nine-year follow-up of a case of Grzybowski type multiple keratoacanthomas and failure to demonstrate human papillomavirus. *Br J Dermatol*. 2002;147(4):793-796.
4. Relvas M, Calvao J, Coutinho I, Cardoso JC. Case for diagnosis. A pruritic eruption of keratotic papules over the face and neck. *An Bras Dermatol*. 2021;96(1):100-102.
5. Parry F, Saunier D, Huertas Diaz DL, Dandurand M. Generalized eruptive keratoacanthomas of Grzybowski: a case report followed over 11 years. *Ann Chir Plast Esthet*. 2017;62(2):176-180.