



Commentary

Great imitators in dermatology: Part I



The great imitator or the great masquerader are terms used to describe medical conditions featuring diverse manifestations. Each could be confused with a number of other diseases. In dermatology, these imitators might be such common diseases as viral exanthems with atypical manifestations or uncommon diseases as cutaneous lymphomas that mimic benign conditions. The best examples are the three ancient infectious diseases - syphilis, tuberculosis, and leprosy, which have been long considered to be the classic imitators for medicine.

Diseases that Qualify

This issue begins with a historical review of the rare genodermatosis Mal de Meleda, a special form of hereditary palmo-plantar keratoderma. Bakija-Konsuo et al have focused on the psychosocial aspect of this disease due to stigmatization and the confusion with leprosy. Luko Stulli (1772-1828), a physician from nearby Dubrovnik, now Croatia, provided an excellent description of this illness in 1826.¹ This hyperkerotic entity imitates the mechanisms of behavior and perception of leprosy which demonstrates the deep vulnerability of the residents' collective.²

Sir William Osler (1849-1919) is credited with stating: “the physician who knows syphilis knows medicine”.³ Syphilis in its various stages, especially secondary syphilis, displays variegated skin findings, and the diagnosis can be elusive without serologic confirmation. Cakmak et al., 2019 highlight contemporary ideas and findings on syphilis needed to achieve an accurate diagnosis and proper treatment, meanwhile addressing the necessary control measures and health education, including patient counselling and partner notification to exclude other sexually transmitted infections.⁴

In 1961, Maurice L. Sievers, who was then a physician attached to the Phoenix (AZ) Public Health Service Hospital for Indians, published “The Second ‘Great Imitator’ – Tuberculosis., making the case for this disease to be ranked right up with syphilis as one that can imitate any number of diseases.⁵ Tuberculosis is still prevailing in many

developing countries and poses a new potential threat to global health due to international migration and the advent of modern immune therapy for chronic inflammatory and cancerous diseases. Chen et al. review the pathogenesis, classification, and clinical findings of various subtypes of true cutaneous tuberculosis and tuberculids. They discuss current therapies, recommendations, and observations of treatment response and disease recurrence, which have been little explored in the literature.⁶

The chilling story and tragic past of leprosy, probably the most feared ancient disease due to its chronicity and deformity, has been reflected in the dramatic human history featured by the quarantine in leprosarium worldwide. Advances in medical diagnosis and treatment in recent years have greatly attracted our attention, whereas leprosy seemed neglected and not have found a place in the medical education curriculum.^{7,8} Kundakci and Erdem remind us that new cases of leprosy are still appearing, in spite of significant reduction in the prevalence and incidence of leprosy, resulting from the control strategies of the World Health Organization.⁹

Viral exanthems in children are always worrisome to the parents and alarming to the physicians, due to their eruptive course, rapid progression, signaling for a systemic involvement and concern for the contagious nature. The disease spectrum is broad, and the majority of exanthems are non-specific, which make the diagnosis challenging. Early recognition and differentiation from noninfectious childhood illnesses are important to pediatricians and dermatologists alike for proper diagnostic investigations and early treatment initiation without unnecessary interventions. Knöpfel et al., 2019. provide diagnostic clues and various presentations of the classic childhood viral exanthems, such as hand-foot-and-mouth disease, Gianotti Crosti syndrome, and unilateral laterothoracic exanthem of children, and the less well-known eruptive pseudoangiomatosis. They also point out some emerging viral infectious diseases with prominent cutaneous manifestations, including Dengue fever, Zika virus infection, and Chikungunya fever.¹⁰

In addition to infections, inflammatory diseases, such as connective tissue diseases, Behçet's disease, and

sarcoidosis, or proliferative disorders, such as histiocytosis and mycosis fungoides, usually have multisystemic involvement. Their initial ambiguous and nonspecific skin manifestations may mimic several other diseases. Behçet's disease, first described in 1937 as a distinctive entity by the Turkish dermatologist Hulusi Behçet (1889-1948),¹¹ is a multi-systemic vasculitis of still unclear etiopathogenesis, involving the mucocutaneous, ocular, articular, neuropsychiatric, cardiovascular, and gastrointestinal systems. Akdeniz et al. have focused mainly on the clinical manifestations, diagnosis and differential diagnosis of Behçet's disease, especially in the context of its imitating aspects.¹²

Sarcoidosis is another multisystemic disease which affect multiple organs, especially the lung, lymph node, eye, and skin. Karadağ and Parish emphasize the importance of cutaneous findings in the establishment of the diagnosis, which could eliminate the need for more invasive evaluation and provide some possible clues to the clinical course, better therapeutic choices, and eventual prognosis. Dermatologists should be encouraged to become actively involved in the multi-systemic evaluations of the affected patients by providing early recognition of cutaneous sarcoidosis to protect the patients from additional cutaneous and/or multi-systemic complications.¹³

Mycosis fungoides, being the most common of the cutaneous T cell lymphomas, can develop varying stages, each having a multifaceted appearance. The more rare variants can simulate a wide variety of benign inflammatory skin disorders and range from folliculotropic, hyper-/hypopigmenting, psoriasiform/ichthyosiform/verrucous, lichenoid, pustular/bullous, figurate erythema-like, to granulomatous mycosis fungoides. Hodak and Amitay-Laish explore this great malignant imitator.¹⁴

Mistreatment or physical abuse of skin, self-inflicted or exogenous, is usually hiding, not only in its nonspecific signs and symptoms but also in its emotional or psychiatric background. Gupta and Gupta summarize self-induced dermatoses, which may both imitate and concur with primary dermatologic diseases. They may be not be readily identified, unless the clinician maintains an index of suspicion.¹⁵ A collaboration between dermatologists and psychiatrists is frequently required to provide appropriate help for this group of patients often with hidden agendas.

Conclusions

Even with progress in diagnostic technology, a well-founded suspicion and early recognition of these great imitators clinically, an awareness can prevent serious complications and avoid unnecessary treatment.

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