Dermatology Practical & Conceptual

Dermoscopy of Infectious Dermatoses: is it Time to Replace the Terms "Entodermoscopy" and "Entomodermoscopy" with "Infectiouscopy"?

Enzo Errichetti [1]

1 Institute of Dermatology, "Santa Maria della Misericordia" University Hospital, Udine, Italy

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Corresponding Author: Enzo Errichetti, Institute of Dermatology, "Santa Maria della Misericordia" University Hospital. Piazzale Santa Maria della Misericordia, 15. 33100-Udine, Italy. Tel: (+39) 0432559822. E-mail: enzoerri@yahoo.it

Besides the classical use in the oncological setting, dermoscopy has showed to be helpful to assist the recognition of several non-neoplastic dermatoses (general dermatology), including inflammatory and infectious conditions [1]. The initial applications in this regard date back to 1997 and concerned parasitic infections (scabies and larva migrans), afterwards several papers on the use of dermoscopy in the field of general dermatology have progressively published, with 305 dermatoses (including relevant disease variants typified by dermoscopic peculiarities) showing at least a dermoscopic description at the end of 2020 [2].

Over the time, the terms "inflammoscopy" and "entodermoscopy" (or "entomodermoscopy") have gradually spread in the scientific community to refer to dermoscopy of inflammatory and infectious diseases, respectively, as their roots link the fields of inflammatory diseases and entomology with dermoscopy [3-4]. However, while the former denomination is still appropriate, there is a need to update the latter. In fact, the terms "entodermoscopy"/"entomodermoscopy" were initially conceived to refer to the study of parasitic dermatoses (including arthropod bites and stings) [3-4] based on the etymology of the word "entomology" (from Ancient Greek ἔντομον (entomon) "insect", and -λογία (-logia) "study of"), [5] yet nowadays the use of dermoscopic assessment has expanded to many non-parasitic infections [2]. In detail, according to a literature overview about the applications of dermoscopy in general dermatology updated to the end of 2020, a total of 25 parasitoses and arthropod bites/stings turned out to have at least one dermoscopic description, which was remarkably lower than the sum of non-parasitic infections (51, with 11, 21, 19 being viral, bacterial and fungal, respectively) (a complete list is reported in Table 1) [2]. Interestingly, whereas the review showed only a little increase in the publication trend about parasitoses over recent times, it displayed a significant leap of articles dealing with dermoscopy of non-parasitic infections in the last few years (36 *vs* 9 addressing parasitoses in the time span between 2016 and 2020 – Table 1), thus making this topic a promising research field in the coming future [2].

Based on the foregoing, when talking about dermoscopy of infectious dermatoses, it would be reasonable to think to replace the terms "entodermoscopy" and "entomodermoscopy", which include a limited part of the infectious spectrum of skin diseases, with "infectiouscopy", that is an "umbrella" term as its root refers to all infectious dermatoses.

Table 1. List of both parasitic and non-parasitic infections whose dermoscopic findings have been described in the literature.

Parasitic dermatoses* (year of first description) N=25	Non-parasitic infections (year of first description) N=51
• Scabies (1997) • Cutaneous larva migrans (1997) • Nodular scabies (2001) • Tungiasis (2004) • Spider leg spines skin reaction (2006) • Furuncular myiasis (2007) • Cutaneous leishmaniasis (2009) • Phthiriasis (2009) • Bullous scabies (2010) • Crusted scabies (2010) • Demodicosis (2010) • Tick bite (2010) • Trombiculiasis (2014) • Wasp (hymenoptera, vespidae) stings (2014) • Pediculosis corporis (2014) • Dermanyssus gallinae mite cutaneous infestation (2015) • Thaumetopoea pityocampa cutaneous reactions (2016) • Bed bug (Cimex lectularius) bites (2016) • Acute cutaneous leishmaniasis (2017) • Wound myiasis (2017) • Disseminated strongyloidiasis (2018) • Cutaneous loxoscelism (2018) • Post-kala-azar dermal leishmaniasis (2018) • Cydnidae pigmentation (2019) • Infectious folliculitis (parasitic) (2019)	• Tinea nigra (2001) • Tinea corporis (2004) • Plane warts (2004) • Common folliculitis (2004) • Molluscum contagiosum (2004) • Epidermodysplasia verruciformis (2006) • Genital warts (2008) • Verruca vulgaris (2008) • Plantar warts (2009) • Lupus vulgaris (2009) • Pitted keratolysis (2010) • Trichobacteriosis axillaris (2012) • Mycetoma (2014) • Cutaneous blastomycosis (2015) • Pityriasis versicolor (2015) • Achromic pityriasis versicolor (2016) • Condylomata lata (2016) • Tinea manuum (2016) • Tinea of vellus hair (2016) • White Piedra (2016) • Pseudomonas folliculitis (2016) • Contagious ecthyma (ORF) (2016) • Tinea incognito (2016) • Staphylococcal scalded skin syndrome (2016) • Disseminated cryptococcosis with cutaneous involvement (2017) • Chromoblastomycosis (2017) • Peruvian wart (2017) • Milker's nodule (2017 • Borderline tuberculoid leprosy (2017) • Syphilis (palmar syphiloderm) (2017) • Histoid leprosy (2017) • Pityrosporum folliculitis (2018) • Sporotrichosis (2018) • Tinea manuum (2018) • Candidal balanitis (2018) • *Mycobacterium marinum* skin infection (2019) • Majocchi's granuloma (2019) • Infectious folliculitis (fungal) (2019) • Infectious folliculitis (viral) (2019) Infectious folliculitis (bacterial) (2019) • *Talaromyces (Penicillium) marneffei* infection • Tuberculoid leprosy (2019) • Borderline lepromatous leprosy (2019) • Lepromatous leprosy (2019) • Type 1 lepra reaction (2019) • Type 2 lepra reaction (2019) • Tuberculosis verrucosa cutis (2020) • Lichen scrofulosorum (2020) • Focal epithelial hyperplasia (2020) • Chilblain-COVID-19-like skin lesions (2020) • Syphilis (penile annular syphiloderm) (2020)

*Including arthropod bites and stings

References

1. Errichetti E, Zalaudek I, Kittler H, et al. Standardization of dermoscopic terminology and basic dermoscopic parameters to evaluate in general dermatology (non-neoplastic dermatoses): an expert consensus on behalf of the International Dermoscopy Society. *Br J Dermatol* 2020; **182**:454-67.
2. Errichetti E. Dermoscopy in General Dermatology (Non-Neoplastic Dermatoses): The Journey So Far. *Dermatol Ther (Heidelb)* 2021; **11**:1871-7.
3. Errichetti E. Dermoscopy of Inflammatory Dermatoses (Inflammoscopy): An Up-to-Date Overview. *Dermatol Pract Concept* 2019; **9**:169-80.
4. Tschandl P, Argenziano G, Bakos R, et al. Dermoscopy and entomology (entomodermoscopy). *J Dtsch Dermatol Ges* 2009; **7**:589-96.
5. Entomology. Available at: https://en.wikipedia.org/wiki/Entomology (last accessed 19 February 2022)