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Public health intervention to address the burden of dermatological complications of diabetes-related foot disorder in community-dwellers living in rural Ecuador

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Diabetes-related foot disorders (DRFD) are among the most feared complications of diabetes mellitus. Foot and ankle ulcerations are the most common causes of non-traumatic amputations in the world. As the majority of these amputations are preventable, efforts should be directed to early detection of individuals at risk, particularly in underserved populations where people are often uninformed of the tremendous risks posed by ulcerative lesions in the feet and ankles. A population-based cohort study to assess the burden of DRFD dermatological sequale was conducted in Atahualpa, a rural Ecuadorian village, by identifying residents aged ≥ 40 years with diabetes mellitus using ankle brachial index to determine presence of peripheral arterial disease, foot examination to assess skin changes, dry skin, ulcerations, fissures and the Michigan Neuropathy Screening Instrument to estimate peripheral neuropathy. Ulcers of the foot/ankle and amputations (always preceded by ulcers) were noticed in 7% of participants and 60% of individuals without ulcers or amputations were at moderate to high risk of developing active diabetic foot disease. These ulcers had been previously recognized and treated in less than 20% of patients. Public health strategies directed to reduce the incidence of catastrophic consequences such as lower limb amputations, are urgently needed to improve the quality of life of millions of persons with diabetes mellitus living in these underserved populations. As a result, weekly community health workshops have been implemented in Atahualpa to educate the high-risk population about the prevention, recognition and care for dermatological manifestations of DRFD to prevent amputation.

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A systematic review of systemic medications for the treatment of melasma

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Background & Aim: Melasma is a common disorder of pigmentation affecting people with darker skin types, most commonly Fitzpatrick skin types III-IV. Despite the large variety of treatment options available including solar exposure prevention, topical lightening agents, chemical peels, light-based and laser therapies, none have shown effective and sustained results, making melasma a challenging and difficult-to-treat condition. Recently, there has been increasing interest in systemic medications in the treatment of melasma. This systematic review evaluates the current state of evidence of these systemic medications in terms of efficacy and safety/tolerability in the treatment of melasma.

Methods: Multiple databases were systematically searched for randomized clinical trials (RCTs) evaluating the use of systemic medications for the treatment of melasma. A study was excluded if it did not satisfy RCT requirements, did not include melasma patients, did not report melasma specific outcome measures or consisted of fewer than 10 subjects.

Results: Initial search yielded 629 papers evaluating a variety of treatments for melasma. After the application of inclusion and exclusion criteria, a total of 8 studies met eligibility criteria. Systemic medications evaluated include tranexamic acid (TA), *Polypodium leucotomos* extract (PLE), beta-carotenoid, melatonin and procyanidin. These agents have a generally beneficial effect with a minimal number and severity of adverse effects.

Conclusion: Oral medications have been shown to be efficacious, safe and well-tolerated in the treatment of melasma. We recommend that dermatologists introduce systemic medications to their armamentarium for the treatment of melasma.

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