Assessing and managing wounds of Buruli ulcer patients at the primary and secondary health care levels in Ghana

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Beyond Mycobacterium ulcerans-specific therapy, sound general wound management is required for successful management of Buruli ulcer (BU) patients which places them among the large and diverse group of patients in poor countries with a broken skin barrier.; Clinically BU suspicious patients were enrolled between October 2013 and August 2015 at a primary health care (PHC) center and a municipal hospital, secondary health care (SHC) center in Ghana. All patients were IS2404 PCR tested and divided into IS2404 PCR positive and negative groups. The course of wound healing was prospectively investigated including predictors of wound closure and assessment of infrastructure, supply and health staff performance.; 53 IS2404 PCR positive patients-31 at the PHC center and 22 at the SHC center were enrolled-and additionally, 80 clinically BU suspicious, IS2404 PCR negative patients at the PHC center. The majority of the skin ulcers at the PHC center closed, without the need for surgical intervention (86.7%) compared to 40% at the SHC center, where the majority required split-skin grafting (75%) or excision (12.5%). Only 9% of wounds at the PHC center, but 50% at the SHC center were complicated by bacterial infection. The majority of patients, 54.8% at the PHC center and 68.4% at the SHC center, experienced wound pain, mostly severe and associated with wound dressing. Failure of ulcers to heal was reliably predicted by wound area reduction between week 2 and 4 after initiation of treatment in 75% at the PHC center, and 90% at the SHC center. Obvious reasons for arrested wound healing or deterioration of wound were missed additional severe pathology; at the PHC center (chronic osteomyelitis, chronic lymphedema, squamous cell carcinoma) and at the SHC center (malignant ulceration, chronic lymphedema) in addition to hygiene and wound care deficiencies. When clinically suspicious, but IS2404 PCR negative patients were recaptured in the community, 76/77 (98.7%) of analyzed wounds were either completely closed (85.7%) or almost closed (13%). Five percent were found to have important missed severe pathology (chronic osteomyelitis, ossified fibroma and suspected malignancy).; The wounds of most BU patients attending the primary health care level can be adequately managed. Additionally, the patients are closer to their families and means of livelihood. Non-healing wounds can be predicted by wound area reduction between 2 to 4 weeks after initiation of treatment. Patients with clinically BU suspicious, but PCR negative ulcers need to be followed up to capture missed diagnoses.
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