中文題目：以第三代頭孢子菌素成功治療之皮膚諾卡氏菌病

英文題目：A case of cutaneous nocardiosis successfully treated with third generation cephalosporin

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Introduction: Cutaneous nocardiosis is a type of skin and soft tissue infection by environmental bacteria *Nocordia* species. Sulfamethoxazole is the priority choice of oral medication[1], but poor renal function is a concern. Herein, we present a case successfully treated with oral cefixime as alternative.

Case report: A 87-year-old man with diabetes mellitus, congestive heart failure, and chronic kidney disease (Cre: 1.8 mg/dL) suffered from painful lesions on the face after falling to the ground. The patient was near fainting and then falling with left cheek hitting the floor. Abrasion wound and ecchymosis were found initially, so he was brought to local clinic. Topical antibiotic was given, and his wound gradually healed. However, pustular eruptions at trauma site developed one week later. Cellulitis was impressed first, so topical fucidin cream and oral doxycycline were applied after obtaining culture. His symptoms did not improve under one-week oral antibiotics. He the came to the dermatology clinic. Physical exam revealed erythematous firm nodule and pustules with erythematous-based patches on left cheek. The patient was afebrile. Differential diagnosis included bacterial cellulitis, atypical infection (eg. sporotrichosis, nocardiosis, or non-tuberculous mycobacterium), or Majocchi granuloma. He then received skin biopsy with tissue culture. Pathology revealed suppurative microabscesses with aggregation of histiocytes. Immunohistochemistry stain showed negative for Periodic Acid-Schiff stain stain, Grocott methenamine-silver stain, Gram's stain and Acid Fast stain. The tissue culture yielded *nocardia brasiliensis*, so cutaneous nocardiosis was diagnosed. Considering the poor renal function of the patient, sulfamethoxazole plus trimethoprim was not given. We prescribed alternative treatment with oral cefexime 100 mg twice a day. The patient’s skin lesion almost resolved after four-week cefexime treatment.

Discussion: Cutaneous nocardiosis is a kind of filamentous bacteria which is aerobic Gram-positive. The portal of entry includes direct inoculation due to trauma or blood stream in

immunocompromised host. Cutaneous manifestation may present as nodular-pustular lesions with or without sporotrichoid distribution, cellulitis, or ulcerative lesions.[2] The most common extracutaneous lesion is pulmonary nocardiosis, especially in immunosuppressed patient. The first-line treatment is sulfamethoxazole with or without trimethoprim. Other alternatives included minocycline, amikacin, imipenem, and third-generation cephalosporins.[3] Combination therapy is suggested to use in severe case. On patient with immunosuppressive state, prolonged antibiotic use for one to four months is highly suggested. Good prognosis of primary cutaneous nocardiosis when appropriate antibiotic therapy is given

Conclusion: Cutaneous nocardiosis may cause by local trauma related to plants and soil which presents as nodular-pustular lesions with or without sporotrichoid distribution, cellulitis, or ulcerative lesions. Sulfamethoxazole is the first-line therapy, but third generation cephalosporin may be an effective alternative on patient who is not tolerated sulfa drug.

References:

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