Melioidosis is a bacterial infection endemic in southeast Asia, especially in Thailand, and northern Australia, but can be found sporadically in tropical areas between latitudes 20° north and south [1]. In temperate areas, the infection is extremely rare and is almost always imported. Melioidosis is caused by Burkholderia pseudomallei, a small, gram-negative, oxidase-positive, motile, aerobic bacillus. The organism is found in soil and surface water in endemic regions. Humans and animals are infected by percutaneous inoculation, inhalation or ingestion. Person-to-person spread and zoonotic infection are uncommon. Melioidosis covers a wide spectrum of clinical presentations and severity, ranging from chronic disease to fulminant sepsis. It may affect almost any organ in the body, pneumonia being the most common presentation. Clinical disease can present from 3 days to several years after acquisition, often associated with risk factors including diabetes mellitus, alcohol use, chronic lung disease, chronic renal disease, and any situation inducing immunosuppression [1].

Several cases of melioidosis have been reported in travelers returning from endemic areas. We present the first case of an Israeli traveler returning from Thailand with localized melioidosis of the skin.

**PATIENT DESCRIPTION**

A 62 year old man with ischemic heart disease was referred to the infectious disease clinic for a non-healing skin lesion of one month duration. He first noticed the lesion during a 16 day vacation in Thailand, which included Bangkok and Pattaya. Initially, the lesion appeared as a painless edematous discoloration on the right forearm. A local physician prescribed a topical antibiotic cream. However, the lesion evolved into ulceration and two satellite lesions later appeared in the vicinity [Figure 1]. A culture of the lesion grew *Burkholderia pseudomallei*. We used the VITEK®2 system (bioMérieux, Marcy l’Etoile, France) for identification and susceptibility testing. The isolate was susceptible to levofloxacin, trimethoprim-sulfamethoxazole, ceftazidime, piperacillin, imipenem and meropenem; it was resistant to aminoglycosides and to colistin (polymyxin E). Upon questioning, the patient stated that he had not had fever at any time since the appearance of the skin lesion. He denied having any scratches or lacerations at the site of the lesion beforehand. It was not raining at the locations he visited. On examination at the clinic the patient appeared well and showed no signs of distress; his lungs were clear, no enlarged lymph nodes were palpated and he had no other lesions on the body except for one on the right forearm. C-reactive protein (CRP) level was 0.5 mg/L, white blood cell count (WBC) was 5.3 x 10^9/L, hemoglobin was 154 g/L and platelets 233.0 x 10^9/L. Oral trimethoprim-sulfamethoxazole 1920 mg twice a day with folic acid 5 mg/day was initiated. There were no significant adverse effects. A marked improvement was noted after the second week of treatment and the lesion healed completely after 5 weeks. The treatment was continued for another 3 months.

**KEY WORDS:** melioidosis, cutaneous infection, traveler, imported infection, tropical infection

**MELIOIDOSIS OF THE SKIN IN AN ISRAELI TRAVELER RETURNING FROM THAILAND**

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melioidosis include two steps: for the acute phase, a regimen of parenteral ceftazidime or meropenem for at least 14 days, and for the eradication phase, oral trimethoprim-sulfamethoxazole alone with folic acid supplement for 12–20 weeks [4]. Whether intravenously administered antibiotics are required for the cutaneous forms is unknown, although according to an expert opinion [5] all cases of melioidosis, even mild disease, should be treated with initial intensive intravenous therapy. However, nine cases of primary skin melioidosis in autochthonous patients from the series of Gibney et al. [3] received oral antibiotics only. All patients had a good outcome, and none experienced recurrence or relapse of the melioidosis. A few cases of imported disease by travelers were also treated successfully with oral antibiotics alone.

Our patient lacked some of the typical traits of melioidosis: he did not have any of the risk factors, did not have previous skin trauma, and at the time he acquired the infection the weather was not rainy. He responded favorably to a regimen including trimethoprim-sulfamethoxazole alone for 12 weeks. A marked improvement was noted after the second week of treatment. We elected to use only an oral regimen since the patient’s clinical presentation was limited to a superficial skin lesion with no systemic signs of infection at any time and he had no risk factors.

Melioidosis must be considered in the presence of an acute or chronic febrile illness even years after return from an endemic area. The risk of acquiring melioidosis is relatively low among conventional charter tourists, although backpackers traveling in the countryside, especially during the rainy season, are at increased risk to contract the disease. Primary cutaneous melioidosis can probably be treated with an oral regimen alone, preferably with trimethoprim-sulfamethoxazole, especially when the patient has no systemic signs of infection and lacks risk factors.

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### References

### Capsule

**The perils of antioxidants in metastatic cancer**

In today’s health-conscious world, it is not unusual for a food item to achieve “superfood” status simply because it contains high levels of “cancer-fighting” antioxidants. This view may be simplistic, because cancer develops and progresses in multiple steps that potentially respond differently to antioxidants. Two new studies converge on the theme that, in the setting of metastasis, antioxidants help the cancer cell and hurt the host. Piskounova and fellow-researchers show that melanoma cells which successfully metastasized in mice were those that had undergone certain metabolic changes which allowed them to withstand oxidative stress. In the other study Le Gal et al. show that the administration of antioxidants to mice that were predisposed to melanoma had no effect on primary tumor development but enhanced lymph node metastases.

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### Capsule

**High throughput screening using patient-derived tumor xenografts to predict clinical trial drug response**

Profiling candidate therapeutics with limited cancer models during preclinical development hinders predictions of clinical efficacy and identifying factors that underlie heterogeneous patient responses for patient-selection strategies. Gao et al. established ~1000 patient-derived tumor xenograft models (PDXs) with a diverse set of driver mutations. With these PDXs, the authors performed in vivo compound screens using a 1 x 1 x 1 experimental design (PDX clinical trial or PCT) to assess the population responses to 62 treatments across six indications. They demonstrated both the reproducibility and the clinical translatability of this approach by identifying associations between a genotype and drug response, and established mechanisms of resistance. In addition, these results suggest that PCTs may represent a more accurate approach than cell line models for assessing the clinical potential of some therapeutic modalities. The authors propose that this experimental paradigm could potentially improve preclinical evaluation of treatment modalities and enhance our ability to predict clinical trial responses.

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