



Case report

A case of cutaneous metastasis mimicking herpes zoster rash

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ABSTRACT

Cutaneous metastasis is a rare occurrence and often is confused with infectious etiology most commonly herpes zoster rash. We present a case 49 year old male with history of metastatic colon cancer with persistent dermatomal vesicular rash that thought to be due to herpes zoster. A skin biopsy eventually revealed malignant cells.

Case description

A forty-nine year old male presented to our hospital with worsening shortness of breath and weakness. He had a past medical history of metastatic colon cancer which he had previously received 12 cycles of folinic acid, fluorouracil and oxaliplatin (FOLFOX) before recurrence. A month prior to admission he was treated for malignant pleural effusion and herpes zoster on the left side of his chest. Patient reported the zoster rash did not improve with valacyclovir and was getting worse. Few days ago prior to admission he received a new antineoplastic agent pembrolizumab along with dexamethasone.

The patient was afebrile, he had a heart rate of 61, blood pressure 137/81, respiratory rate 22 saturating at 99%. He appeared comfortable and in no distress. His cranium was normocephalic, had conjunctival pallor without petechiae, mucocutaneous tissue was moist. Neck examination revealed cervical lymphadenopathy that was non tender. Chest examination revealed grouped vesicular rash extending to the posterior axillary region covering T3-T5 dermatome (Figs. 1 and 2). No crusted lesions seen and were tender to palpation. Cardiac examination revealed normal S1, S2 heart sounds without murmur or rub. Respiratory examination revealed decreased breaths sounds on the left base; Abdomen showed a well-healed midline scar, was nontender, no organomegaly and normal bowel sounds. Extremities were normal

Laboratory studies revealed WBC 14 K/uL, Hemoglobin 13.8 g/dL, hematocrit 40.9%, platelets 235 K/L. He had a sodium 130 mmol/L, potassium 5.2 mmol/L, chloride 98 mg/dL, bicarbonate 24 mg/dL, BUN 38 mg/dL, Creatinine 1.34 mg/dL. He had AST 154, ALT 20, troponin I 0.061.

Clinical course

Two days into receiving intravenous acyclovir the rash was without any signs of evolution. A skin biopsy eventually revealed positive immunohistochemical stains for CK7 and CDX-2 supporting the diagnosis of metastatic adenocarcinoma of colorectal origin. In addition, viral culture was no growth.

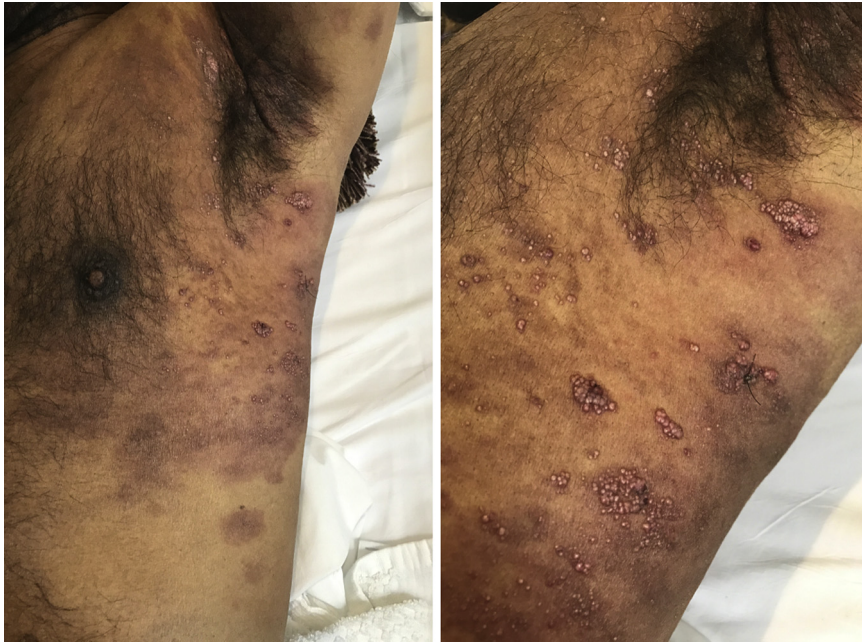
Discussion

Cutaneous metastasis is rare occurrence with incidence ranging from 0.7 to 10% of malignancies. The appearance may appear to be common skin infections and often times confused with cellulitis, erysipelas and herpes zoster. Different features of cutaneous metastasis include erysipeloid, telangiectatic, alopecia neoplastica, generalized erythematous patches, erythema annular centrifugum-like, and zosteriform. The latter which is rare with only few case reports. Little of the mechanism is known however some proposals suggest Koebner phenomenon where trauma from a previous zoster infection or surgery predisposes implantation of tumor cells. The diagnosis of cutaneous metastasis is made by skin biopsy. Cutaneous metastasis confers grave prognosis. In those with adenocarcinoma, prognosis is 18 months from the diagnosis of cutaneous metastasis.

Our patient's cutaneous lesions had resemblance of herpes zoster. Given his immunocompromised status it was easy to misdiagnose him as such. Two important clues in his clinical course impelled us to look for a different diagnosis. He was previously treated for herpes zoster in

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Figs. 1 and 2. Vesicular appearing lesions distributed on T3-T5 dermatomes as the result of cutaneous metastasis from adenocarcinoma of colon.

the same region without resolution. His hospitalization allowed us to observe the course of his rash which did not have the usual progression of herpes zoster (vesicular/pustular lesions leading to crusting).

Cutaneous metastasis should be in the differential diagnosis in a patient with a skin infection especially when there is no observed response to antimicrobial therapy.