



Recurrent brain metastases from cutaneous squamous cell carcinoma of great toe; a case report.

By

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Abstract

Background: The majority of cutaneous squamous cell carcinoma (SCC) are diagnosed early and cured using local treatment, although a minority of cases metastasize to regional structures. In this report, the authors describe an unknown feature of skin SCC, namely, distant recurrent brain metastasis

Case: 53 years old man with history of arsenicosis developed ulceration of medial side of left great toe. Biopsy showed squamous cell carcinoma, well differentiated. He underwent Ray's amputation of great toe. FNAC from nodular lesion showed suggestive of malignancy. FNAC from left inguinal region showed metastatic squamous cell carcinoma. Then he received six cycles of chemotherapy with inj cisplatin and inj 5-fluorouracil. The lesions were resolved and under follow-up. But again after eight months of chemotherapy he develop headache, vertigo, paresis of lower limb. MRI of brain showed right temporal SOL, suggestive of recurrence. He was then planed for re irradiation to brain. Received 20Gy in10 fractions (over two weeks using linear accelerator) re irradiation to brain. He is still alive after 6 months of re-irradiation in spite of poor performance status.

Conclusions: Brain metastases in cutaneous squamous cell carcinoma is very rare. Although the described case is unique, knowledge of the potential for this uncommon behavior in cutaneous SCC and management may be useful.

Introduction

One of the rarest carcinomas, comparing to other carcinomas of foot, is squamous cell carcinoma. This carcinoma may be arisen from other parts of the body. In spite of having good prognosis of this carcinoma in previous cases, there are high chances metastasis. Usually common site of Squamous cell carcinoma in foot are usually detected on the inner aspect of the foot [1].

The prognosis of the disease depends on proper diagnosis and treatment, if the lesions are untreated, it may be an alarming condition. In the plantar region, they are irregularly shaped, well-demarcated, verrucous. Previous clinical studies revealed

that approximately 5% of all SC of all primary carcinomas occur in the lower extremities.

The Suggestive treatment depends on the stages of cancer. If the lesion is small, the physician prefers surgical excision of the lesion. Even if, for advanced toe cancer, however, amputation is also suggested followed by radio-therapy and chemotherapy [2].

Cutaneous squamous cell carcinoma (SCC) are diagnosed early and cured using local treatment. In this report, we describe an unknown feature of skin SCC, namely, distant recurrent brain metastasis.



Case Presentation:

A 53 years old man, hailing from endemic area of arsenicosis, had come with widespread alter color skin lesion, hyper keratosis on palm & sole for more than 20 years, developed ulceration of medial side of left great toe about 3x2cm. On biopsy report, there was evidence of squamous cell carcinoma, which was well differentiated. After the diagnosis, he underwent Ray's amputation of great toe. Approximately eight months later of surgery, he developed multiple nodular lesions on left ankle and leg. FNAC from nodular lesion report revealed significant evidence of malignancy.

On lymph-node examination, left inguinal lymph node is also palpable. FNAC from left inguinal region showed metastatic squamous cell carcinoma. Other metastatic workup was unremarkable.

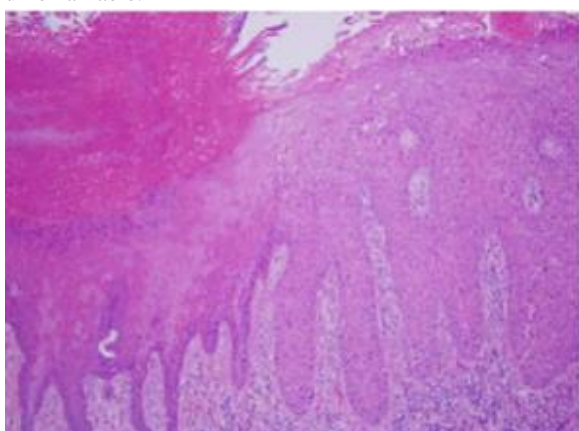


Figure 1: Histology of squamous cell ca, well differentiated

Treatment:

Based on the clinical diagnosis, he received six cycles of chemotherapy with inj cisplatin and inj 5-fluorouracil. The lesions were resolved and under follow up.

However, again after eight months of chemotherapy he develop headache, vertigo, paresis of lower limb.

CT scan of brain showed bilateral cerebral metastases. He received palliative radiotherapy to whole brain with 30 Gy 10 fractions over 2 weeks using a linear accelerator.

He was quite well as symptoms were improved.

But again after seven months of radiotherapy he again developed some symptoms as well as headache, vomiting, convulsions, repeated history of fall followed by unconsciousness. MRI of brain showed right temporal SOL, suggestive of metastases/ recurrence.

He was then planed for re irradiation to brain. Received 20Gy in 10 fractions (over two weeks using linear accelerator) re-irradiation to brain.

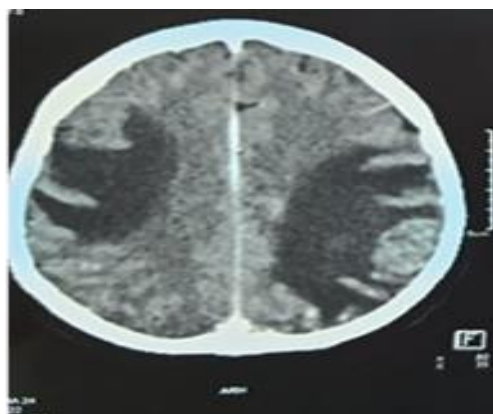


Figure2: bilateral cerebral metastases;

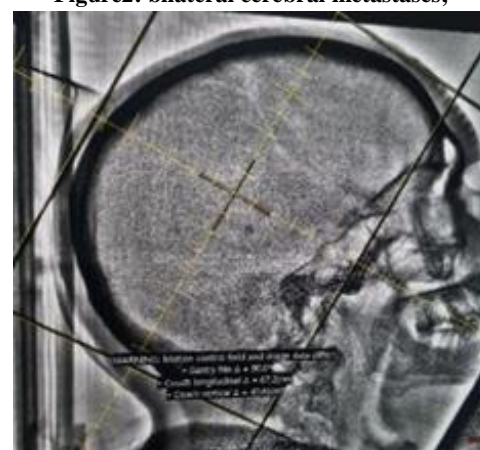


Figure 3: Two-dimensional Xay simulation of whole brain radiotherapy

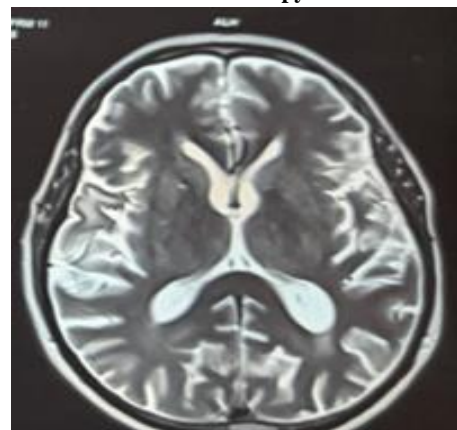


Figure 4: right temporal SOL, suggestive of metastases/ recurrence;

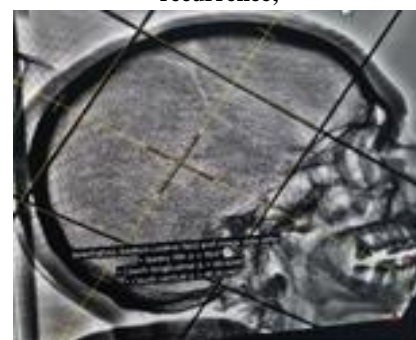


Figure 5: Two dimensional Xay simulation of whole brain radiotherapy; re-irradiation

Outcome:

He is still alive after 6 months of re-irradiation in spite of poor performance status.

Discussion:

Basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) are the most common nonmelanotic cutaneous malignancy in patients with long-term exposure to arsenic.

Squamous cell carcinoma (SCC) is relatively rare in the foot. This carcinoma of the foot may arise from a precursor lesion or may be secondary⁽³⁾. Locoregional or distant metastases develop in <1 to 5 percent of cases. Primary cSCC found that tumors on the auricular area, lip, and cheek were more likely to metastasize than tumors on the lower leg⁽⁴⁾. Brain metastases are most commonly seen in advanced lung cancer, breast cancer, and melanoma renal cell ca, they are a rare sequela of head-neck cutaneous squamous cell ca, occurring in less than 1% of all reported cases⁽⁴⁾. Central nervous system involvement by HNSCC is commonly seen via direct invasion of the skull base or through peri-neural invasion. Brain metastasis from cutaneous squamous cell ca of great toe is unusual. In most cases, brain metastases could mean that the cancer is terminal. A 2018 analysis found that, out of a total of 145 people, the average survival time was 6 months. Radiotherapy is also the primary modality for the treatment of multiple brain metastases and improves both the quality of life and survival of patient⁽⁵⁾. Unfortunately, more than half of these treated patients eventually progress leading to a therapeutic dilemma. Re-irradiation resolves distressing symptoms and has shown to improve survival with minimal late neuro-toxicity.

Intervention:

Reirradiation has conventionally been done with whole-brain radiotherapy, but now studies with stereotactic radiosurgery have also shown promising results.

Conclusion:

Brain metastases in cutaneous squamous cell carcinoma is very rare. Although the described case is unique, knowledge of the potential for this uncommon behavior in cutaneous SCC may be due to arsenicosis and management may be useful.

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