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Case report

Electrochemotherapy for treatment of Merkel cell carcinoma: A case report

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ABSTRACT

A 65-year-old man presented with an uncontrolled Merkel cell carcinoma on his chest that originated from his forearm. He previously had an amputation at the shoulder joint, but his disease recurred around his amputated stump and chest despite aggressive surgery, radiotherapy and chemotherapy. Palliative treatment with electrochemotherapy was administered with good response. Four months later, there was no recurrence of the disease.

Introduction

In 1972, Toker et al first described Merkel cell carcinoma (MCC) as a rare and aggressive cancer.[1] It frequently occurs in the head and neck area (41–50%), followed by upper and lower limbs (32–38%) and trunk (12–14%). This neuroendocrine neoplasia arises from a cutaneous mechanoreceptor cell (Merkel cell), located in the basal layer of the epidermis.[2]

Between 1999 and 2008, 1515 cases of Merkel cell carcinoma were reported. Since then, there has been an increasing standardised incidence rate at 0.1–0.2 per 100,000 populations in England.[3] The main treatment modality for the early-stage tumours is surgery and/or radiotherapy, while chemotherapy with etoposide and cisplatin or carboplatin finds a role only in patients with systemic metastases.

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There is poor prognosis associated with Merkel cell carcinoma; the National Cancer intelligence Network, UK, for the 10-year period between 1999 and 2008 found that 79% of patients with MCC died within 2 years of diagnosis.[3]

Case report

A 65-year-old male presented with Merkel cell carcinoma on his left forearm. This was followed by wide local excision and sentinel lymph node biopsy which was negative. CT staging showed no systemic disease. This was followed by three cycles of radiotherapy.

His disease rapidly recurred within a few months followed by chemotherapy. Again, the disease recurred rapidly around his forearm and elbow. This was followed by amputation at his shoulder 2 years after his initial diagnosis.

Soon after his amputation, the disease recurred around his amputated stump and chest (Figure 1). There was no evidence of systemic disease. He underwent electrochemotherapy (ECT) as a last resort, with IV bleomycin. An immediate outcome was seen after his treatment, with all disease nodules disappearing within 2 weeks of treatment (Figure 2). At 6 weeks, he had a repeat treatment for new lesions around his chest. Post-operative recovery was uneventful.

Discussion

There is an increasing incidence of MCC in England, especially over the past 10 years.[3] There are several possible reasons for this; MCC was not routinely recognized by pathologists until a highly effective microscopic stain ("CK20") was developed in the 1990s. In addition, better recognition and increased numbers of exposure to the risk factors associated with MCC are on the rise, and increases in ultraviolet (UV) exposure, greater numbers of people over the age of 50 and more people living with immunosuppressive disease. The main treatment modality for early-stage tumour is excisional surgery and/or radiotherapy. Chemotherapy with etoposide and cisplatin or carboplatin is only used in patients with systemic metastases. Due to the low incidence of MCC, experiences with recurrent lesions or

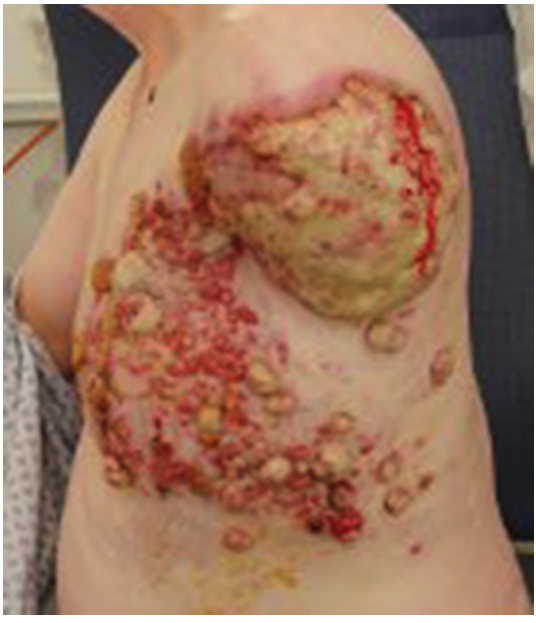

Figure 1. Pre ECT treatment with extensive recurrences of Merkel cell carcinoma.