

# Lymphangitis carcinomatosa of a cutaneous squamous cell carcinoma

Marloes Sophia van Kester, Roel Erik Genders, Koen Dirk Quint

Department of Dermatology,  
LUMC, Leiden, The Netherlands

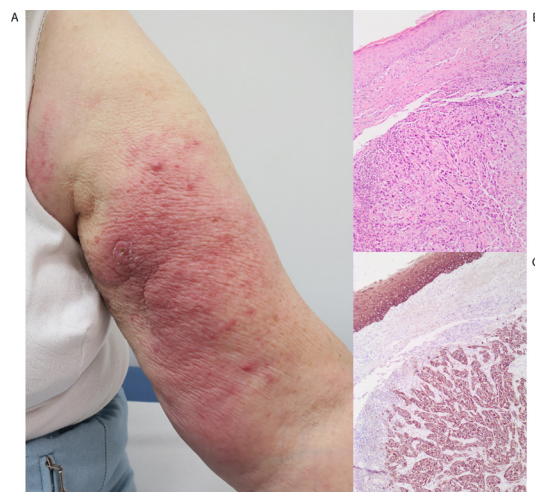
Correspondence to  
Dr Koen Dirk Quint,  
k.d.quint@lumc.nl

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## DESCRIPTION

An 83-year-old woman presented with erythema, papules and nodules on the left upper arm (figure 1A). She was treated with antibiotics by her general practitioner, with no disease response. Eight months earlier a 2.5 cm poorly differentiated primary cutaneous squamous cell carcinoma of the left preauricular area, with metastases to the regional lymph nodes, was staged T2N2M0 (tumour, node, metastases). She was treated with radical tumour resection, parotidectomy, and levels 2, 3 and 5 lymph node dissection, followed by post-operative radiotherapy. A total body skin examination was performed. On the left upper arm and adjacent to the axillary sulcus, a poor demarcated area of erythema with papules and nodules was noted. There were no signs of recurrent disease in the head and neck area, and no suspicious lesions elsewhere. Biopsies were taken from nodular and papular lesions on the upper arm.

Histology showed poorly differentiated squamous cell carcinoma in the dermis without continuity to the epidermis (figure 1B) and strongly positive keratin staining (figure 1C), thereby confirming the diagnosis of cutaneous metastasis of a primary cutaneous squamous cell carcinoma. Furthermore positron emission tomography (PET)-CT scan shows increased metabolism in the left upper arm, lymph nodes suspected for



**Figure 1** (A) Clinical image of the skin lesion showing erythema with papules and nodules on the left upper arm and adjacent to the axillary sulcus. (B) HE staining (100× magnification) of a 3 mm biopsy of the left arm showing atypical cells in the dermis without connection with the epidermis. (C) Keratin staining (100× magnification) confirming a squamous cell origin.



**Figure 2** Positron emission tomography-CT scan reveals increased metabolism in the left upper arm, lymph node metastases in the left axilla, elbow, delta pectoral, bihilar and mediastinal regions, and multiple lung metastases.

metastases in the left axilla, elbow, delta pectoral, bihilar and mediastinal regions, and multiple lung lesions (figure 2).

Previously the primary cutaneous squamous cell carcinoma had already metastasised to the regional lymph nodes demonstrating behaviour of a high-risk tumour. The overall risk for nodal metastasis of cutaneous squamous cell carcinoma is 3.7%–5.2%.<sup>1</sup> Several risk factors for metastasis were identified in the resection of the primary tumour: diameter >2 cm, poor differentiation and 6 mm invasion depth.<sup>1,2</sup>

Remarkably, no locoregional disease recurrence was noted clinically or demonstrated by PET-CT



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## Learning points

- ▶ High risk cutaneous squamous cell carcinoma can develop lymphangitis carcinomatosa.
- ▶ Lymphangitis carcinomatosa can occur beyond the draining lymph node basin of the primary tumour.

scan or ultrasound. Most likely, the tumour spread further through the lymphatic system, eventually demonstrating in the small lymphatic vessels of the skin, presenting the clinical image of a lymphangitis carcinomatosa. Lymphangitis carcinomatosa has been previously described after removal of a lymphatically invasive primary cutaneous squamous cell carcinoma in a renal transplant recipient.<sup>3</sup> Thus far, lymphangitis carcinomatosa due to cutaneous squamous cell carcinoma outside tumour-draining lymph node basin and as primary demonstration of recurrent disease has not been described.

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