



CLINICAL IMAGES

Auto-amputation of a breast due to ductal carcinoma

P van der Bijl

Auto-amputation of a breast as the result of a malignant process has been reported twice.^{1,2} In one case, a malignant melanoma of the breast originating in the nipple was responsible for the gross tissue destruction,¹ the breast progressively atrophying and disintegrating to the point of disappearance. Another auto-amputation was described as one of tissue 'decay', denoting a somewhat different pathological process.² No other references to a breast auto-amputating *in toto* as a consequence of mamma carcinoma could be found.

Case report

The patient, a 58-year-old woman, presented to the outpatient clinic at the Department of Oncology, Kimberley Hospital, in 2007. Her history was of a bloody discharge from her left nipple, with an accompanying ulcer on the left breast that had been developing more than 4 months before she presented to us. Approximately 4 months prior to the date of presentation, the left breast auto-amputated as an entity. It was discarded by the patient, and hence could not be subjected to histopathological investigation.

An ulcer (15×12 cm), with a clean base and a small amount of granulation tissue, was present on the left thoracic wall (Fig. 1). A fixed, hard lymph node (1×1 cm) was found in the right axilla, and another (2×1.5 cm) in the left axilla. A biopsy of the ulcer base demonstrated an infiltrating ductal carcinoma. No signs of pulmonary, hepatic or skeletal metastases were detected. A full blood count demonstrated thrombocytosis that was considered secondary to the neoplastic process.

On clinical and histological grounds, the diagnosis of an infiltrating ductal mamma carcinoma staged T4cN2aM0 with subsequent auto-amputation was made and chemotherapy was initiated.

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Fig. 1. Ulcer present on the left thoracic wall following auto-amputation of the breast.

Discussion

One can only speculate on the mechanism of auto-amputation of breast tissue as it has not been described. Owing to the late presentation of our patient, the clinical evolution of the process was not witnessed, and we therefore cannot add to knowledge of the process. From the history, it is only known that nipple discharge and an ulcer preceded the auto-amputation.

Necrosis can occur in malignancies (ductal carcinoma *in situ* as well as invasive carcinomas) of the female breast.³ Ultrastructural studies have indicated that the observed necrotic processes are a combination of apoptosis (active/programmed cell death) and oncosis (passive/accidental cell death).⁴ It is reasonable to assume that auto-amputation of breast tissue is related to necrosis. Auto-amputation presumably starts with necrosis of the skin and supporting tissues of the breast, superimposed on the tumour necrosis. This extensive destruction of deep and superficial structures is then followed by eventual detachment of the breast from the thoracic wall. The auto-amputation *in toto* described in this case, as opposed to gradual auto-amputation,^{1,2} might, however, have been the result of differing pathological processes.

Late presentation of mamma carcinoma is common at our clinic and in South Africa, which has no national mammographic screening programme. Diagnostic and treatment delays are also associated with socio-cultural beliefs causing misconceptions about disease and its management.



Education of patients in regular self-examination of their breasts cannot be overemphasised. Furthermore, doctors should be strongly encouraged to include an examination of the breasts as part of a general medical examination.

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CLINICAL IMAGES

Progressive multifocal leucoencephalopathy – a case report

Mala Modi

Progressive multifocal leucoencephalopathy (PML) is a demyelinating disease caused by the human neurotropic JC (John Cunningham) virus, a polyomavirus.^{1,2}

Following on the worldwide HIV/AIDS pandemic there has been a dramatic increase in the incidence of PML. However, cases of PML, an AIDS-defining illness, have rarely been reported from Africa, an area where HIV-1 clade C infection predominates.³⁻⁵

Clinical and imaging details

A 27-year-old woman presented to Chris Hani Baragwanath Hospital, Johannesburg, with new-onset seizures. She was heterosexual, did not abuse intravenous drugs, and was retroviral therapy-naïve. On examination in the medical ward she was found to be encephalopathic and pregnant. Further investigations revealed that she was HIV-positive with a very low CD4+ count of 7 cells/ μ l, and a viral load greater than 750 000 copies/ml. She was referred for imaging, and PML was diagnosed on the basis of computed tomography (CT) and magnetic resonance imaging (MRI) appearances.

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Fig. 1. Axial CT scan of the brain showing deep white-matter hypodensity involving predominantly the right parieto-occipital lobes. There is no mass effect.

263

The lesions on CT imaging were typical; they were scalloped in appearance, involved the white matter of the frontal, parietal