

SHORT COMMUNICATION

Transient Telangiectatic Purpura after Axillary Dissection: A Postoperative Phenomenon

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Telangiectasias are small dilated vessels observed after inflammatory diseases, radiotherapy and in vascular malformations, such as Sturge-Weber neurovascular syndrome (1).

Purpura is a discoloration of the skin due to extravasation of red blood cells. Extravasated blood is broken down to various metabolites derived from haem within 3 weeks.

Purpura can originate from platelet or coagulation disorders, elevated intravascular pressure, vasculitis or toxic reactions to drugs. Purpura lesions do not blanch on applying pressure (diascopy) (2).

Treatment of metastatic malignant disease often involves regional lymph node dissection. Axillary lymph node clearance involves removal of all lymph nodes in levels I–III. The intercostobrachial sensory nerves in the area are removed, but the motor nerves (long thoracic and thoracodorsal nn.) are preserved (3, 4).

Significant morbidity can be related to axillary dissection including seroma, wound infection, haematoma, neuropraxia, lymphoedema and shoulder dysfunction (3, 5).

We present here 2 cases of transient purpura discoloration of the skin after axillary dissection in 2 patients with different malignancies.

CASE REPORTS

Case 1. A 69-year-old man with metastatic melanoma in the left axilla developed a purple rash on the left hemithorax (Fig. 1a) 35 days after left axillary dissection.

Postoperatively, he developed a seroma located to the left axilla, which was evacuated twice. The rash developed in the area of the seroma and expanded to cover Th1–Th8 dermatomes on the left side.

The rash generally blanched under pressure, but in some areas it was purpura. No itching or signs of infection was observed. Oedema was not present.

Skin biopsies showed extravasated erythrocytes, but no signs of vasculitis. No changes in the cutaneous nerves or any malignancies were seen (Fig. 2). Blood plate count was normal ($202 \times 10^9/l$, reference $145\text{--}350 \times 10^9/l$).

The rash disappeared spontaneously after one month, with temporary haem deposits, but no permanent pigmentation of the skin. Six months after surgery the patient developed disseminated malignant melanoma in the lymph nodes, liver and bones and died 3 months later.

Case 2. A 59-year-old woman with left-sided breast cancer and metastasis to the left axillary lymph nodes developed a purple telangiectatic rash with areas of purpura and oedema on the left hemithorax 25 days after mastectomy and left axillary dissection.

The rash originated in the mastectomy scar and, eventually covered the dermatomes of Th1–Th8 (Fig. 1b).

Anti-oestrogen treatment was initiated 18 days before the rash debuted and radiotherapy was initiated 2 weeks after the rash had developed.

No seroma or signs of infection were observed and the blood plate count was normal ($321 \times 10^9/l$, reference $165\text{--}400 \times 10^9/l$).



Fig. 1. (a) Clinical appearance of patient 1, with the rash limiting itself almost exclusively to the Th1–Th8 dermatomes on left side of the chest wall. (b) Patient 2 with a similar rash.

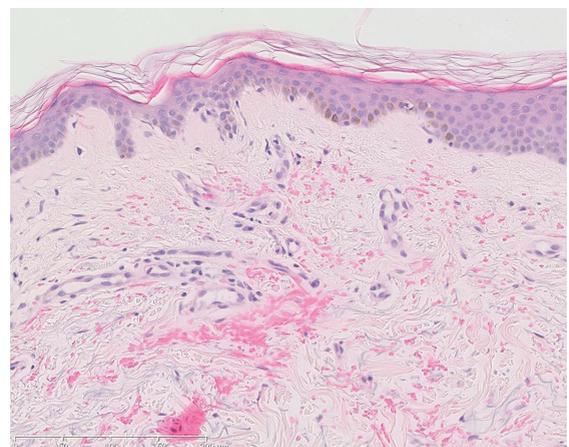


Fig. 2. Histology from a punch biopsy in patient 1. Extravasated erythrocytes as well as dilated vessels are the only abnormal observations. Haematoxylin-eosin; $\times 20$.

Skin biopsies showed dilatation of the lymphatic vessels in the superficial part of dermis, but no signs of vasculitis, malignancy or changes in the cutaneous nerves (results not shown).

The rash disappeared spontaneously after 45 days. Sixteen months after surgery the patient had no recurrence of breast cancer.

DISCUSSION

The 2 patients showed a remarkable similar rash within approximately one month after axillary dissection. It may be hypothesized that the relation of the rash to similar dermatomes in both patients could be related to the surgical procedure causing irritation or damage to the sympathetic nerves related to the intercostal arteries, and thereby inhibiting vessel contraction as well as sweat gland secretion. In addition, experiments in rats have shown that noxious inflammatory stimuli may induce increased blood flow through an axonal reflex (6).

The skin biopsies were strikingly normal considering the dramatic presentation of the rash.

In conclusion, postoperative telangiectatic purpura is a benign self-limiting postoperative phenomenon observed in relation to axillary dissection with no sequelae, requiring only reassurance of the patient.

The authors declare no conflicts of interest.

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