

## Cutaneous lymphadenoma with unusual localization

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included reactions noted in melanoma SNB reported an incidence of between 0.8% and 1.9%.

The St George's Hospital Melanoma database of sentinel node biopsies has been compiled since 1998 and currently has 1785 procedures recorded. No cases of anaphylaxis or other life threatening reactions have been observed. One confirmed adverse reaction to patent blue dye was noted in our series, a case of blue dermographia.<sup>4</sup> This patient required no form of resuscitation and the procedure was completed without complication. St George's Hospital Melanoma Unit therefore demonstrates an incidence of 0.056% of adverse reactions to patent blue dye, with no cases of life threatening reactions. This is significantly lower than the incidence reported by the ALMANAC trial.

The MHRA advice is based on evidence primarily from studies observing rates of reactions to patent blue dye in the setting of SNB for breast cancer. It could be hypothesized that different techniques of administering the dye such as peritumoural or periareolar<sup>5</sup> used in breast cancer increase the risk of an adverse reaction to the dye when compared to the intradermal injections used in melanoma SNB. It may be that sub dermal injections increase systemic spread of the dye leading to more severe reactions. Similarly SNB for breast cancer is usually undertaken at the same time as the removal of the malignancy. As malignant tissues are often more vascular than normal tissue this may represent a route for greater systemic spread of the dye when compared to SNB for melanoma where the original lesion has usually been previously excised for diagnostic histology. This too may account for the higher rates of adverse reactions. Furthermore it is uncommon to use more than 1 ml of the dye in melanoma SNB. This is at least 50% less dye than the standardized volume of 2.0 ml used for breast cancer SNB in the ALMANAC study. This reduced volume may conceivably too affect rates of adverse reactions.

The risk of adverse reactions to the dye is not routinely mentioned during the consent process for SNB at St Georges Hospital. The St Georges Melanoma Unit has not experienced any life threatening reactions to patent blue dye. Our incidence of 0.056% of adverse reactions, being <1%, means that we would not routinely include adverse reactions to patent blue dye as part of our consent procedure. However individual units must reflect on their own experiences with patent blue dye and determine whether they should or should not routinely the risks of adverse reactions during consent.

Vigilance should always be encouraged however the St Georges Melanoma Unit's experiences with patent blue dye would suggest it is safe having experienced a very low incidence of adverse reactions when used for melanoma sentinel node biopsy.

## Ethical approval

Not required.

## Funding

None.

## Conflicts of interest

None declared.

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## Cutaneous lymphadenoma with unusual localization<sup>☆</sup>



Dear Sir,

Cutaneous lymphadenoma is a rare epithelial neoplasm that arises mainly on the skin of the head and neck. It was first described in 1991 by Santa Cruz et al.<sup>1</sup> and has been reported in the literature under various names e.g. benign lymphoepithelial tumor of the skin and adamantinoid trichoblastoma.<sup>2</sup> Histological findings have shown a florid mononuclear cell infiltration in the tumor nests and a detailed phenotypical analysis of T-cells showed that they mainly consisted of memory T-cells. As to whether cutaneous lymphadenoma is a benign or malignant skin tumor is under discussion by various authors but it has shown metastatic tendency.<sup>3</sup> We present a case of a cutaneous lymphadenoma with an unusual localization on the lower back in a 60-year old man.

<sup>☆</sup> Department to which the work should be attributed: Department of Plastic Surgery, Aalborg University Hospital, Sdr. Skovvej 3, 9000 Aalborg, Denmark.

## Clinical findings

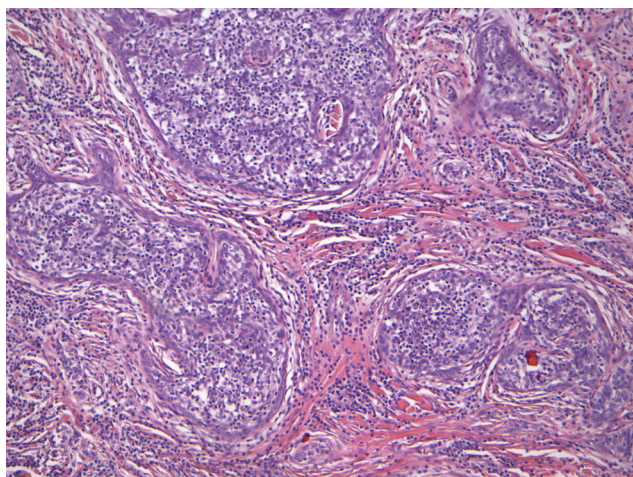
A 60-year old man, otherwise healthy, sought his general physician because of a slow-growing element on the lower back. The patient had had the small skin tumor for approximately 10 years with no complaints except cosmetic and an increase in size. The GP referred the patient with an presumed atheroma to a dermatologist for surgical removal. The clinical findings were a solid tumor measuring 22 × 12 mm, pale skin-colored and not well defined from the adjacent skin. Though the tumor was excised close to the borders, there was no remaining tumor after excision.

## Histopathological findings

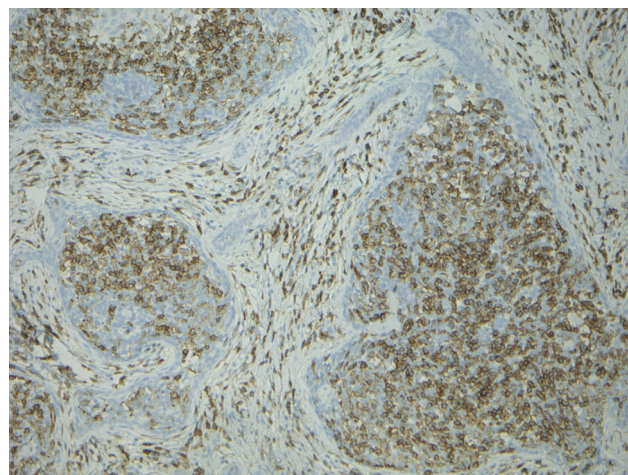
Histologic examination revealed a well-circumscribed unencapsulated intradermal lesion with multiple irregularly shaped lobules, cords and interconnected strands with a peripheral palisaded border of basaloid-like cells and admixture of central mononuclear cells. No connection with the overlying epidermis on consecutive sections was found. Areas of central keratinization were also present. Immunohistochemical stainings revealed that epithelial cells were positive for PanCK, EP4 (peripheral border), but negative for EMA. Mononuclear cells within the lobules and tumor stroma areas were positive for CD3, CD4, CD5, TIA1. CD1a, CD68 and S-100 stain revealed some positive cells within the lobules. From the above the diagnosis of cutaneous lymphadenoma was made (Figures 1 and 2).

## Discussion

Cutaneous lymphadenoma is a very rare neoplasm, which arises mainly on the skin of the head and neck. More than



**Figure 1** Irregularly shaped lobules with a peripheral palisaded border of basaloid-like cells and admixture of central mononuclear cells.



**Figure 2** Immunohistochemical staining for cutaneous lymphadenoma.

40 cases of cutaneous lymphadenoma have been reported and only few with localization other than head/neck. The latest WHO classification of tumors considers it to be a synonym of trichoblastoma (an adamantinoid trichoblastoma), but there is still debate regarding pathogenesis of this neoplasm. Histologically, cutaneous lymphadenoma is composed of multiple rounded or irregularly shaped lobules of basaloid cells with some degree of peripheral palisading, with an intense infiltrate of small mature lymphocytes within the lobules. Histopathological differential diagnosis includes clear cell basal cell carcinoma, clear cell variant of syringoma, trichoepithelioma, lymphoepithelioma-like carcinoma of the skin.<sup>4</sup> However, the above-mentioned tumors do not show such prominent lymphoid cell infiltrate within the tumor lobules.

There is an ongoing discussion as to whether this tumor is malignant or benign. Complete excision is therefore recommended. Excision with Mohs surgery has earlier been shown to be effective and safe.<sup>5</sup> Two out of three patients had the tumor removed in two stages, suggesting the margins were not clinically well-defined, as was the case with our patient, although microscopy showed no remaining tumor. Hanlon et al.<sup>5</sup> recommend Mohs as being ideal for sparing as much of the healthy skin as possible, while insuring complete removal with highest cure rate and best cosmetic result, because the defect is kept as small as possible, especially since the majority of cutaneous lymphadenomas occur on the face. Mohs micrographic surgery, though, is expensive and time-consuming and we simply recommend re-excision if the margins are not microscopically without tumor. After complete excision there have been no cases of remission, so this seems to be a safe and still a minimally invasive method.

We present a case of cutaneous lymphadenoma with an unusual localization on the lower back, treated with complete excision, with no reported remission after 2 years.



## Learning points

- Cutaneous lymphadenoma is a rare skin tumor of the neck and head, but it can also be seen on the legs or trunk.
- Re-excision if the margins are not microscopically free of tumor.
- Histologically, characterized by multiple rounded or irregularly shaped lobules of basaloid cells with some degree of peripheral palisading, with an intense infiltrate of small mature lymphocytes within the lobules.
- Clinically it can resemble an atheroma and histologically basal cell carcinoma, clear cell syringoma or lymphoepithelioma-like carcinoma.

## Disclosures

Conflict of interest: None declared.

Funding: None.

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## A simple technique using the mini C-arm to guide depth gauge placement



Dear Sir,

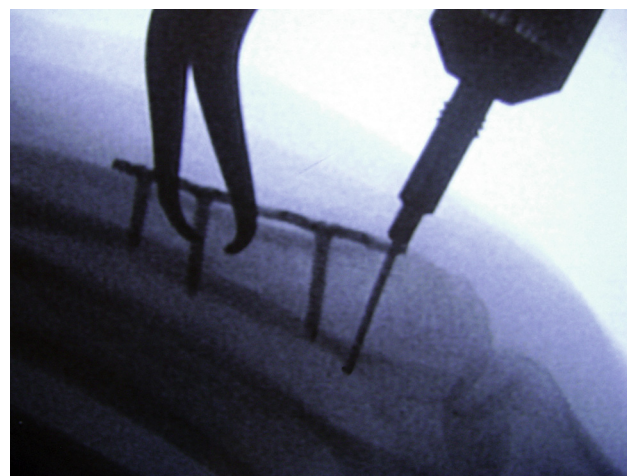
Open plate-fixation of hand fractures relies upon efficient, accurate and safe insertion of the plate and screws. Screw length is ascertained using a depth gauge and, although depth gauge measurement may be certain in most cases, we have found that this is not true in some instances such as with more complex fracture patterns. This can result in several different measurements being made and subsequent incorrect screw length selection.

We present a simple technique that utilises the mini C-arm in conjunction with a depth gauge to assist accurate drill hole depth measurement in cases where doubt exists using the gauge alone.

This technique is used after guided hole drilling of the bone has been performed. Where there is measurement doubt using the depth gauge, we advocate that depth gauge insertion is accompanied by visual confirmation of accurate placement using the mini C-arm orientated perpendicular to the axis of the screw hole to obtain a screening image (Figure 1).

This uniquely described simple technique for drill hole depth measurement and screw choice in metacarpal fracture plate fixation prevents potentially unnecessary second screening after incorrect screw length placement with subsequent requirement for removal and reinsertion. This is due to direct visualisation of the depth gauge 'lip' as it has made contact with the deep volar cortex, and provides accurate measurement at the first attempt. It provides a visual reference image for subsequent drilled holes so that the likely depth may be anticipated, and thus rule out subsequent inaccurate drill hole measurements.

In cases with more complex fracture patterns the small 'lip' of the depth gauge may in fact miss the deeper volar



**Figure 1** Fluoroscopic-guided depth gauge placement. The depth gauge lip can clearly be seen to be accurately placed.