Correspondence

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was incomplete according to the pathological report (histological findings showed involvement of the medial margin of the skin). Therefore, she underwent elective re-excision of cutaneous medial margin, but it was not easy and intuitive to understand where expanding after reconstruction with frontal transposition flap [Figure 2b]. For this reason it was necessary to re-evaluate the pre- and intra-operative photos and, together with the description of the pathologist (assisted by the use of landmarks on the piece removed), we decided to enlarge the skin adjacent to the bridge of the nose and above the frontal flap.

In order to better understand where an enlargement needs to be made it is important to consider not only the geometric shape in which the lesion is included, but also the type of movement that the flap undergoes. Performing an enlargement after reconstruction with a transposition or rotation flap is more difficult than performing an enlargement following an advancement flap [Figure 1].

From our clinical experience we have observed the importance of the following points:

• The use of landmarks in the piece that we removed.
• The evaluation and comparison of preoperative and intraoperative photos.
• The close cooperation with the pathologist.
• The enlargement, made during flap in setting and shaping, should always be sent to the pathologist for histological analysis.

Margins should always be assessed in the following way:

• Orient and ink the specimen.
• Use different ink for different sides of the specimen.
• Re-excision specimens should be oriented, inked and sent to the pathologist along with a pre-operative photo of the patient where enlargements and their landmarks are shown.

Although this field is undeniably in a state of flux, rudimentary guidelines can be established:

1. The surgeon must apply oncologic principles during a skin cancer resection to increase the right orientation of the tumor;
2. The pathologist must consider techniques that increase the accuracy of margin analysis;
3. The surgeon and the pathologist must collaborate closely to assess the actual needs of enlargement.

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There are no conflicts of interest.

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Tâche Noire: A Classic Case Treated with Dual Freeze Cycles of Liquid Nitrogen Cryotherapy and Clasped Manoeuvre

Dear Editor,

A tâche noire is a cutaneous hallmark occurring after a hard tick bite.[1] We report an effective and safe method of tick removal using a specific manoeuvre along with liquid nitrogen double-freeze cryotherapy.

A 24-year-old milkman presented with sudden onset of an itchy and painful black-crusted lesion with a red
halo on his left upper scapular area [Figure 1a]. He had a history of handling dogs and cattle. However, he did not recollect any arthropod bite. Close examination showed irregular movement within the lesion, which revealed a tick holding onto the skin [Figure 1b].

After informed consent from the patient, we opted for cryotherapy. We applied 15 s of freezing directed from the lateral side of the tick, focusing on its mouthparts by tightly pinching the lesion [Figure 2].

The previously flat and horizontally engorged tick became vertical [Figure 3]. This was due to transient spasmodic movements of its trunk posteriorly with its clasp not released anteriorly. After 3 min of thawing, we executed a second cycle of 15 s of freezing to the top position of the mouthparts [Figure 4]. After another 3 min of thawing, the tick spontaneously released its clasps and was removed in toto. The site became ulcerated [Figure 5]. Under 10× microscopy, we visualized its mouthparts and confirmed...
that it was a hard tick [Figure 6]. We prescribed systemic azithromycin 500 mg twice daily for 3 days, systemic levocetirizine 5 mg daily for 7 days, and topical sodium fusidate ointment 2%. The site healed after 1 week [Figure 7].

Ticks belong to two major families, Ixodidae (hard tick) and Argasidae (soft tick). The hard tick bears a chitinous dorsal surface, and its mouthparts project forward with a toothed hypostome. Tâche noire is the cutaneous hallmark after a hard tick bite in 13-68% of patients with *Rickettsia conorii* infection, the pathogen causing Mediterranean spotted fever (African and Indian tick typhus). It is endemic throughout Africa, the Middle East, southern Europe, India, and southwestern Asia. It is important to remove the ticks as early as possible to reduce the chance of tick-borne infections. Ticks should not be arbitrarily pulled as twisting may break off its mouthparts, thereby leading to secretion of its infective body fluids. Unless promptly and carefully treated, complications such as tick paralysis, transmission of rickettsial infections with serious systemic involvement, subcutaneous hemorrhage, chronic ulceration, and leukocytoclastic vasculitis can arise. Modalities such as liquid paraffin, kerosene, petrol, iodine, ether, chloroform, and lignocaine jelly bear their respective drawbacks.

Pavlovic et al. and Lanschuetzer et al. reported tick removal by the application of liquid nitrogen with 20 s for a single freezing.

Based on our previous experience, the single-freeze method is inadequate in certain patients. A physical maneuver to pinch the chunk of skin on which the tick is attached may increase efficacy, more so than merely a distant cryospray. It may also prevent salivary dispersion of the tick into the deeper tissue, thus minimizing a risk of subsequent dissemination of tick-borne infection. We speculate that administration of cryotherapy may cause acute cryospasm of mouthparts and body parts at the base of the clasped skin, which may help immediate release the clasp of the tick.

We emphasize that cryotherapy is an easy, inexpensive method for prompt, safe, and complete removal of a tick by liquid nitrogen cryotherapy. Cryotherapy might prevent the subsequent risk of transmission of infections. However, close clinical monitoring is still highly recommended.

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There are no conflicts of interest.

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