

Suggested Injection Zone for Soft Tissue Fillers in the Temple?

Some confusion and consternation about the safest anatomical zone for filler placement in the temple has become increasingly recognized. As vascular complications including blindness¹ have been reported from filler injection in this region, a brief summary of the main safety articles seems helpful.

The outstanding works of Dr Jung and colleagues and the Korean anatomists,² Swift,³ and of Breithaupt and colleagues⁴ are very important in establishing the most appropriate injection zone for deep reflation of the human temple. We have personally used these 3 published complementary suggestions and found them to be most helpful.

Dr Jung and coworkers have demonstrated that the median temporal vein is usually situated approximately 1.5 cm above the superior border of the zygoma. This distance was judged by Dr Jung and coworkers to be approximately 1 fingerbreadth above the superior border of the zygoma. As such, they suggest that the safest area for temple injection is at least 1 fingerbreadth above the zygomatic arch.

Dr Swift and the Breithaupt group suggest “1 cm up and 1 cm over” meaning 1 cm superior to the tail of the brow along the temporal fusion line and 1 cm inferior to this point as the best suggested injection zone.

A fourth important anatomical concern has been demonstrated by Dr Larrabee and colleagues⁵ showing that the branches of the superficial temporal vessels lie superior to this suggested injection zone and are very important to avoid because they communicate with branches of the supraorbital and supratrochlear vessels. The suggested zone for injection must also be inferior to these anastomotic vessels, which could also communicate with the orbit.

Finally, other authors^{3,4} and we suggest that the optimum depth of injection is preperiosteal, beneath the temporal muscle.

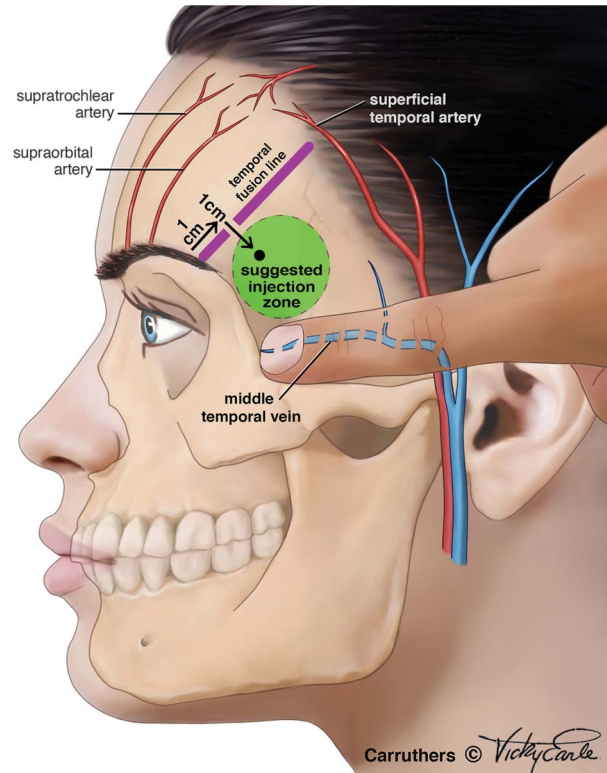


Figure 1. Suggested safe injection zone for the temple lies between the superolateral bony orbital margin, approximately 1 cm inferior to the temporal fusion line and over 1 finger breadth above the superior border of the zygoma in order to avoid the middle temporal vein.

Putting all these suggestions together, the suggested zone for deep temple reflation thus lies inferior to the superficial temporal vascular arcades, above the median temporal vein, and 1 cm posterior along the temporal fusion line and 1 cm inferior to this point and deep to the temporal muscle (preperiosteal) (Figure 1).

The authors welcome further suggestions and discussion and thank the authors of these excellent articles for their leadership in the realm of injectable safety.

References

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Cutaneous Involvement in Adult Multisystemic Langerhans Cell Histiocytosis Successfully Treated With Pulsed Dye Laser

Langerhans cell histiocytosis (LCH) is a rare abnormal proliferative and infiltrative disorder of Langerhans cells that can affect any organ and/or skin site. However, treatments for cutaneous LCH remain a therapeutic challenge.¹ The authors report a patient with multisystemic LCH and the successful response of cutaneous lesions with pulsed dye laser (PDL).

A 51-year-old woman with a 15-year history of multisystemic LCH with pulmonary, pituitary gland (diabetes insipidus) and cutaneous disease presented with a chronic axillary ulcer of more than 6-month duration (Figure 1A). Physical examination demonstrated a painless, 5 × 5 cm in diameter, mildly exudative, left axillary ulcer. Under the clinical suspicion of suppurative hidradenitis, multiple regimens of topical and systemic antibiotics failed to show response with subsequent progression of the lesion. Histopathological analysis revealed features consistent with LCH (Figure 1B–D).

Medical history showed that 2 additional biopsies were performed in the past for scalp lesions that clinically resembled seborrheic dermatitis and for nail dystrophy that simulated lichen planus. The histopathological study at both sites was compatible for LCH. Cutaneous examination demonstrated all nail plates on both hands severely affected (Figure 2). Nail dystrophy and painful periungual swelling and erythema impaired the

performance of basic daily activities. Crusting and desquamation overlying an erythematous base characterized lesions on the scalp. Scattered, erythematous, crusted papules on the trunk and external auditory canal as well as ulcers and gingival hyperplasia in the genital and oral mucosa were observed respectively. However, none of these other manifestations were of relevance to the patient, as these were asymptomatic, except for the nail involvement and discomfort of the axillary ulcer. Previous treatment of the nail beds and ulcer included multiple therapies with antifungals, topical corticosteroids, and antibiotics with failure to show clinical or symptomatic improvement.

Furthermore, aggressive chemotherapy was contraindicated because of risk of worsening the patient's health status. Instead, PDL as an alternative therapy was proposed.

Materials and Methods

Pulsed dye laser with a wavelength of 595 nm, beam diameter of 7 mm, pulse duration of 0.5 milliseconds, and laser energy fluence of 7.5 J/cm² as parameters was chosen based on the parameters used in nail psoriasis² with a cold air cooling system. Pulsed dye laser was initiated on the axillary ulcer and the right hand nail beds. A contiguous layer of