photo-ageing, as most lesions were located on sun-exposed skin. Sonographic characteristics may allow to differentiate GF from subacute cutaneous lupus erythematosus as the latter shows thickening and hypoechogenicity of the dermis with a plateau shape, and increased echogenicity of the upper hypodermis with a ''foggy appearence'',[6] and from inflammatory complications of cosmetical fillers, where the patient is occasionally reluctant to admit the procedure, such as hyaluronic acid and pure silicone (anechoic pseudocysts), liquid silicone (snowstorm appearance), polymethylmethacrylate and calcium hydroxyapatite (hyperechoic dots and bands, respectively).[7] Also, HRU may help to differentiate GF from primary cutaneous lymphomas (PCLs) occurring on the face such as primary cutaneous $CD4^+$ small/medium T cell lymphoproliferative disorder, primary cutaneous anaplastic large cell lymphoma, primary cutaneous marginal zone lymphoma and primary cutaneous follicle center lymphoma, among others. In PCLs HRU reveals thickening of dermis with no evidence of necrosis, calcification or posterior acoustic shadowing. Papules of PCLs are seen as focal infiltrative lesions, whilst nodules are seen as pseudonodules and nodules (more frequently in B cell PCLs), and plaques, as hypoechoic, diffusely infiltrative lesions (more predominant in T cell PCLs). On colour Doppler mode, PCLs show hypervascularity, although initial focal infiltrative lesions may be avascular.[8]

Clinical and histopathological diagnosis of GF may be challenging. We believe that knowing the sonographic characteristics of GF may help in the diagnosis of this disease. Further studies describing ultrasonographic features of inflammatory dermatoses of the face are required.

Conflicts of interest

The authors have nothing to disclose.

References

1. Ortonne N, Wechsler J, Bagot M, Grosshans E, Cribier B. Granuloma facial: a clinicopathologic study of 66 patients. J Am Acad Dermatol. 2005;53:1002–9.
2. Echeverría-García B, Borbujo J, Alfageme F. The use of ultrasound imaging in dermatology. Actas Dermosifiliogr. 2014;105:887–90.
3. Wortsman X, Alfageme F, Roustan G, Arias-Santiago S, Martorell A, Catalano O, et al. Proposal for an Assessment Training Program in Dermatologic Ultrasound by the DERMUS Group. J Ultrasound Med Off J Am Inst Ultrasound Med. 2016;35:2305–9.
4. Wortsman X. Common Applications of Dermatologic Sonography. J Ultrasound Med. 2012;31:97–111.
5. Abbas O, Mahalingam M. The grenz zone. Am J Dermatopathol. 2013;35:83–91.
6. Wortsman X. Atlas of Dermatologic Ultrasound. Springer International Publishing; 2018.
7. Wortsman X, Wortsman J. Sonographic outcomes of cosmetic procedures. AJR Am J Roentgenol. 2011;197:W910–918.
8. Mandava A, Koppula V, Wortsman X, Catalano O, Alfageme F. The clinical value of imaging in primary cutaneous lymphomas: Role of high resolution ultrasound and PET-CT. Br J Radiol. 2019;92:20180904.

D. Morgado-Carrasco, P. Giavedoni*, J.M. Mascaró, P. Iranzo

Departamento de Dermatología, Hospital Clínic de Barcelona, Universidad de Barcelona, Barcelona, Spain

* Corresponding author.
E-mail address: giavedonip@gmail.com (P. Giavedoni).

https://doi.org/10.1016/j.adengl.2021.02.002

The Reading Man Flap: An Alternative for Reconstructing Defects in Areas of Flexion and Extension☆

Colgajo del lector como alternativa reconstructiva en regiones sometidas a movimientos de flexoextensión

Dear Editor,

The so-called *reading man flap* was described by Mutaf et al.[1] in 2008 as a new technique for covering circular defects. It takes its name from the form of the defect with the Z-plasties, which is reminiscent of the silhouette of someone reading (Fig. 1A). The technique is based on development of an asymmetric Z-plasty. It has been mainly used for reconstruction of facial defects. Given its most important characteristic is that it guarantees tension-free closure, we believe that it could be of great use for closure of defects at sites subject to flexion and tension movements.

Case History

A 102-year-old man, who was partially dependent for basic activities of daily living, but with complete mobility in his arms and who could eat without assistance, underwent a single surgical procedure in regimen of major outpatient surgery, under local anesthetic and sedation, for a circular squamous cell carcinoma in the radial dorsal region of the left wrist (Fig. 1B). The resulting defect measured 4 cm (Fig. 1C). A reading man flap was designed for reconstruction of the defect, which was sutured directly with silk 3/0 stitches (Fig. 1D). Daily dressing changes were done with chlorhexidine and soft bandaging, and the stitches were removed after 10 days. The patient was recommended not

☆ Please cite this article as: Martínez de Espronceda Ezquerro Í, Azcona Rodríguez M, Sarriugarte Aldecoa-Otalora J, Iglesias Zamora ME. Colgajo del lector como alternativa reconstructiva en regiones sometidas a movimientos de flexoextensión. Actas Dermosifiliogr. 2021;112:563–565.

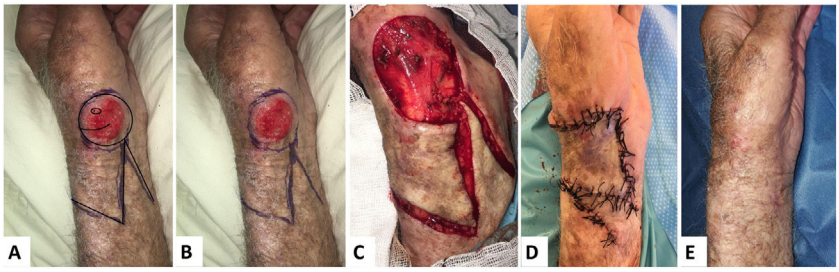

Figure 1 A and B, Surgical margin with a circular shape and design of the double transposition plasty. C, Defect resulting from tumor resection and construction of the 2 flaps. D, Immediate postoperative outcome. E, Good esthetic and functional outcome at 3 months after surgery.

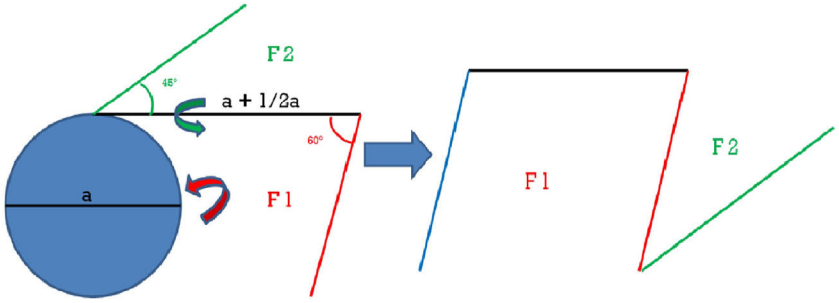

Figure 2 Schematic of the design of the reading man flap. The curved arrows indicate the direction of transposition of each of the flaps, which once transposed, leave a distribution of scars like that shown in the figure on the right.

to lift weights or make forced movements with the arm for 15 days. No postoperative complications were reported, except for a small superficial necrosis at the vertex of the second flap. However, the esthetic and functional outcome at 3 months was very satisfactory (Fig. 1E).

Discussion

This reading man technique is based on the use of an asymmetric Z-plasty (Fig. 2). The central line, tangential to the defect, and perpendicular to the line of low skin tension, should be 50% longer than the diameter of the defect (black line). At the distal end, a line is designed forming a 60° angle with a length equal to the diameter of the defect (red line) and at the proximal end to the defect, another tracer line opposite to the anterior of equal length is added, forming a 45° angle (green line). Subsequently, a double transposition is performed by which the tumor defect is covered by the first rectangular-shaped flap (F1). This defect is in turn covered by transposition of the second triangular-shaped flap (F2).

In the literature, we encountered 14 articles that reported a total of 147 cases. The main site where this technique was used is the face, specifically the malar region,[2,3] followed by the trunk. At the latter of these sites, the reading man flap has been used mainly for covering large defects after myelomeningocele interventions,[4] or pressure ulcers.[5] In such situations, it is a very useful alternative to myocutaneous or perforating flaps. However, we did not find any publication that highlighted the advantages of this plasty at sites of flexion and tension as was the case in our patient.

The reported rate of complications is relatively low. There have been a few reports of mild dehiscence and cases of dog ears and transient trapdoor effect have been reported due mainly to the first flap being too large.[6] Also of note is a case of partial distal necrosis at the vertex of the second plasy.[4] Such complications seem to be more frequent when used at an extrafacial site.[7]

This plasty has been compared with other transposition flaps such as the Limberg flap or the bilobed flap in models of artificial human skin and a lower suture tension; less removal of healthy skin, and a longer scar were demonstrated compared with the Limberg flap but with a similar scar area.[1,8]

The reconstruction of defects to cover periarticular areas is a therapeutic challenge, and transposition flaps are the most widely used, above all, bilobed flaps or Limberg flaps, as they allow the tension of closure to be reduced compared with other types of reconstruction. Good outcomes have been reported with the keystone-type flap in these areas[9]; however, most patients were younger and with a much less atrophied skin than was the case in our patient. Other options, such as complete skin graft, have the drawback of subsequent contracture of the graft and therefore a greater risk of functional limitations.

In summary, the reading man flap is a safe plasty that can be performed relatively easily. The main advantage is that it can guarantee closure with low tension. There is therefore a lower risk of necrosis, dehiscence, and poor wound healing, with less distortion and traction of adjacent tissues, and less removal of healthy skin.[10]

Conclusion

Although the reading man flap was initially described to cover circular defects on the cheek, and indeed it is a good option for this site, we believe that the advantages mentioned with respect to other local plasties make it a particularly useful option in regions submitted to high tension such as large defects on the trunk or those in body areas with movements of flexion and tension, such as the wrist in the case of our patient. In these regions of flexion and tension in particular, other reconstructive options such as grafts or Limberg plasties can generate more traction with a greater risk of functional deficit.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References

1. Mutaf M, Sunay M, Bulut O. The ''reading man'' procedure: a new technique for the closure of circular skin defects. Ann Plast Surg. 2008;60:420–5.
2. Mutaf M, Günal E, Temel M. Closure of defects of the malar region. J Craniofac Surg. 2011;22:631–4.
3. Cecchi R, Fancelli L, Troiano M. Letter: the ''reading man'' flap in facial reconstruction: report of 12 cases. Dermatol Online J. 2012;18:16.
4. Mutaf M, Temel M, Günal E. The reading man flap for closure of large meningomyelocele defects. J Plast Reconstr Aesthet Surg. 2012;65:578–83.
5. Sapountzis S, Park HJ, Kim JH, Chantes A, Beak RM, Heo CY. The ''reading man flap'' for pressure sore reconstruction. Indian J Plast Surg. 2011;44:448–52.
6. Wagner JA, Simon JC, Wetzig T, Kendler M. Outcomes of wound closure with the reading man flap technique. J Cutan Med Surg. 2013;17:384–6.
7. Blázquez-Sánchez N, Repiso-Jiménez JB, García-Harana C, de Troya-Martín N. El colgajo del lector en cirugía dermatológica. Piel (Barc). 2019;34:116–8.
8. Seyhan T, Caglar B. Reading man flap design for reconstruction of circular infraorbital and malar skin defects. Dermatol Surg. 2008;34:1536–43.
9. Jovic TH, Jessop ZM, Slade R, Dobbs T, Whitaker IS. The use of keystone flaps in periarticular wound closure: a case series. Front Surg. 2017;4:68.
10. Pichler M, Deluca J, Tappeiner L, Eisendle K. Reconstruction of large rectangular infraorbital and malar skin defects in elderly patients with a modified ''reading man flap'' using local tumescent anesthesia. Int J Dermatol. 2014;53:1520–5.

Í. Martínez de Espronceda Ezquerro*, M. Azcona Rodríguez, J. Sarriugarte Aldecoa-Otalora, M.E. Iglesias Zamora

Servicio de Dermatología, Complejo Hospitalario de Navarra, Pamplona

* Corresponding author.
E-mail address: martinezespronceda@gmail.com
(Í. Martínez de Espronceda Ezquerro).

https://doi.org/10.1016/j.adengl.2021.03.005

Erythrodermic Lichen Planus☆

Liquen plano eritrodérmico

To the Editor:

A 51-year-old man with a history of morbid obesity and smoking, who reported having recently taken medication, visited the emergency department with a highly pruritic rash that had appeared 2 months earlier and had spread to practically the entire body area. Physical examination revealed erythroderma consisting of the convergence of multiple erythematous-violaceous papules, some with a lichenoid sheen, accompanied by palmoplantar keratoderma (Fig. 1). The facial area was spared, together with some areas of skin on the lower part of the abdomen. Several fingernails showed trachyonychia and onychorrhexis. No abnormalities were observed in the oral or genital mucosa. The patient's general condition was good, with no symptoms in other organs or systems, no enlarged lymph nodes, and no fever. Due to the intense pruritus, the patient had received treatment in primary care with 5% topical permethrin and methylprednisolone at low doses, with no improvement. No other family members suffered from pruritus.

A punch biopsy was performed, and histology revealed intense lichenoid interface dermatitis, with lymphocyte infiltrate with no eosinophils or plasma cells, with apoptotic Civatte bodies in the basement layer and absence of parakeratosis (Fig. 2). A general analysis was ordered (blood count, biochemistry, renal function, liver function, and lipid profile) with normal results. Serology for HVB, HVC, HIV, and syphilis, and antinuclear antibody determination, anti-SSA-Ro, and anti-SSB-La were negative.

Given the results of the general analysis and while waiting for the other additional tests, treatment with cyclosporin (400 mg/24 h) was instated, as its use was not contraindicated and covered other potential causes of erythroderma, such as atopic dermatitis and psoriasis. After a week, the patient reported notable improvement of the lesions, with complete disappearance of the pruritus. A month later, only residual hyperpigmentation was observable (Fig. 3). It was possible to suspend medication and the patient remained without signs of recurrence after 6 months of follow-up.

Because the patient stated that he had not previously taken or applied drugs or been exposed to toxins, and based on the clinical and pathology findings, a diagnosis was made of erythrodermic lichen planus, a very rare variety of both lichen planus and erythroderma.

☆ Please cite this article as: P.J. Gómez Arias, F. Leiva Cepas, M. Galán Gutiérrez, Vélez García-Nieto AJ. Liquen plano eritrodérmico. Actas Dermosifiliogr. 2021;112:565–567.