

Reference for the Soft Tissue Workshop

Olivares J^{1*} Solis J² and Conde MA³

¹Department of Aesthetic Surgery, Instituto de Estudios Superiores en Medicina, Mexico

²Department of Aesthetic Surgery, Private Practices, Michoacan, Mexico

³Department of Aesthetic Surgery, Private Practices, Veracruz, Mexico

*Corresponding author: Jorge Olivares, Aesthetic Surgery, Instituto de Estudios Superiores en Medicina, Mexico, Tel: 525-5526159743; E-mail: joecirplast@prodigy.net.mx

Received date: November 02, 2017; Accepted date: November 04, 2017; Published date: November 10, 2017

Copyright: © 2017 Olivares J, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

The soft tissue workshops carried out in medical schools was done using pig legs which is a very limited area to carry out the exercises; despite this, the objective of the workshop was achieved in terms of learning. Advances in medicine have caused changes in attitudes and in areas traditionally reserved for certain groups, thus causing a beneficial improvement between them, as long as medical-surgical acts are performed with the highest current standards.

Keywords: Soft tissue; Skin closure; Suture technique; Subcutaneous tissue; Adipose tissue

Introduction

This method of study is original and we have been doing it for several years in different schools and courses related to the surgical practice to obtain better tissue management, doing different exercises described in other workshops, thus expanding the field of practice with pig skin.

Objective

Here we propose a method to carry out the Skin closure workshop using a 20 × 20cm square of pig skin, to have a wider area for the soft tissue exercises that were carried out on pig's legs.

Methods

Following are the equipment needed for the procedure:

- Adult pre-folded diaper (Figure 1)
- Pig skin (A 20 × 20 cm square)
- Suture equipment including scalpel handle, scalpel blade, dissection forceps (Adson with teeth), needle holder, scissors, fine leather hooks, ruler, compass, sutures, and gentian violet (for marking)

For this procedure clean Pig skin is used. The skin may include some subcutaneous adipose tissue, some meat which should be completely clean. The Pig skin is previously shaved so that it is perfectly clean of hair and washed perfectly well. Salt is applied for preservation, so it won't get rancid or spoil (Figure 2). Pig skin has a subcutaneous cellular tissue and the plane between the dermis and the subcutaneous tissue is quite free, thus facilitating the control of the depth of the detachment plane. The desired detachment plane lies between the dermis and the subcutaneous cellular tissue (Figure 3).



Figure 1: Pre-folded diaper used for drying of the Pig skin.

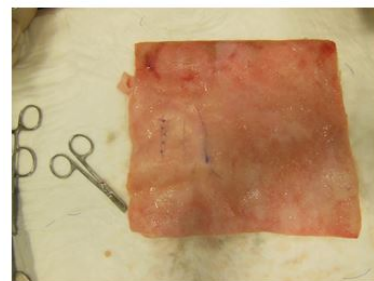


Figure 2: Perfectly shaved and cleaned Pig skin.

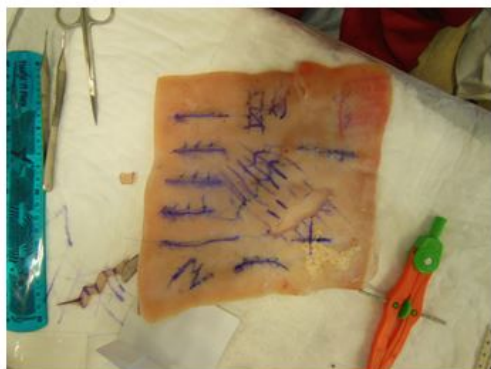


Figure 3: Pig skin marked with gentian violet.

Exercises for soft tissue management can be performed easily since the material is larger, malleable and resembles human skin (Figures 4 and 5).



Figure 4: Exercises done for soft tissue management.

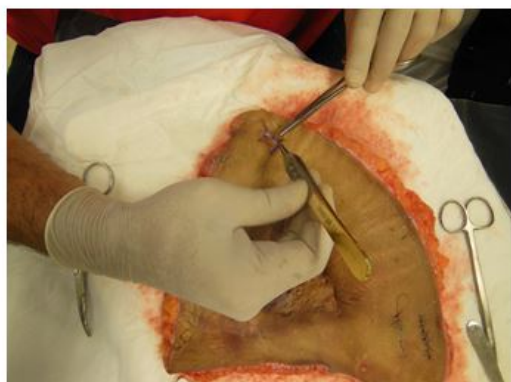


Figure 5: Exercises done for soft tissue management.

The exercises performed in a workshop includes subcuticular running suture, horizontal and vertical mattress sutures, simple

interrupted suture, simple running suture, "Z" plasty and half buried suture (Figure 6).

Advantages

When we do this method of study, students improved their surgical skills in the management of tissue, the types of injury, differentiate the use of points of suture and the material to be used, as well as the techniques of knotting, and getting to know its advantages and disadvantages.

Disadvantages

It takes time and patience for their individual understanding, critical thinking, decision-making and clinical judgment.

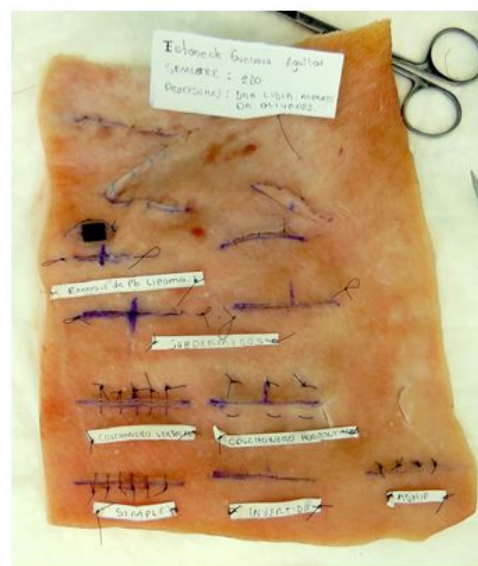


Figure 6: Exercises done for soft tissue management.

As result of the above, great care must be taken and no greater skill is required when taking off human skin [1-5].

Conclusion

This model will be of great help for future students in face wounds and scars handling courses, which can be students, interns, residents, general practitioners and relatives, since the responsibility of handling these problems is not reserved to anyone in particular, being the doctor the one responsible for knowing how to handle these problems adequately since achieving the best result depends on it (Figure 7) [6-9].

This reference is specially addressed to any doctor who receives a patient with wounds or scars on his/her face, so that he/she acquires sufficient knowledge to solve the problem immediately as well as in the best way. Although is not a simple task, if you persevere, it can be achieved.



Figure 7: A soft tissue practice workshop to students for improving their surgical skills.

References

1. Adams B, Levy R, Rademaker AE, Goldberg LH, Alam M (2006) Frequency of use of suturing and repair techniques preferred by dermatologic surgeons. *Dermatol Surg* 32: 682-689.
2. Adams B, Anwar J, Wrone DA, Alam M (2003) Techniques for cutaneous sutured closures: Variants and indications. *Semin Cutan Med Surg* 22: 306-316.
3. Ratner D, Nelson BR, Johnson TM (1994) Basic suture materials and suturing techniques. *Semin Dermatol* 13: 20-26.
4. Chan JL, Miller EK, Jou RM, Posten W (2009) Novel surgical technique: Placement of a deep tip stitch. *Dermatol Surg* 35: 2001-2003.
5. Lin KY, Farinholt HM, Reddy VR, Edlich RF, Rodeheaver GT (2001) The scientific basis for selecting surgical sutures. *J Long Term Eff Med Implants* 11: 29-40.
6. Wong NL (1993) Review of continuous sutures in dermatologic surgery. *J Dermatol Surg Oncol* 19: 923-931.
7. Kronic AL, Weitzul S, Taylor RS (2006) Running combined simple and vertical mattress suture: A rapid skin-everting stitch. *Dermatol Surg* 31: 1325-1329.
8. Moy RL, Lee A, Zalka A (1991) Commonly used suturing techniques in skin surgery. *Am Fam Physician* 44: 1625-1634.
9. Kim PT, Aoki M, Tokita F, Ishii S (1996) Tensile strength of cross-stitch epitenon suture. *J Hand Surg Br* 21: 821-823.