

## **ABRA Adhesive Skin Closure Clinical and Economic Highlights**

**On an outpatient basis, using only ABRA Adhesive Skin Closure, sternal wound infections were closed without additional procedures.<sup>1</sup>**

**ABRA Adhesive Skin Closure was used to pre-surgically expand skin around an 8.5 x 7.5cm scalp defect to allow complete excision and primary closure.<sup>2</sup>**

**Early results with ABRA Adhesive Skin Closure demonstrated cosmetically acceptable, delayed primary closure of difficult fasciotomy wounds.<sup>3</sup>**

**Pre-surgical skin expansion using ABRA Adhesive Skin Closure enabled wide excision and subsequent primary closure of cutaneously based malignancies in many anatomical locations.<sup>4</sup>**

**The staged closure of a giant neonatal omphalocele with ABRA Adhesive Skin Closure shows that it may also prove useful in the treatment of other congenital tissue defects.<sup>5</sup>**

The published articles and posters make reference to the challenges of primarily closing infected or retracted wounds, a giant omphalocele and closing the skin after wide excisions. Traditional methods include the use of skin grafts and implanted balloon expanders, which do not consistently achieve a primary closure, can cause further trauma and result in more procedures for the patient.

ABRA Adhesive Skin Closure is an advancement that achieves a low-tension primary closure, eliminating skin grafts and their associated complications, and directly resulting in significant patient benefits and cost saving.

### **References and Details**

**1. *Elastic Device Facilitating Delayed Primary Closure of Sternal Wound Infection.* Price J, Rubens F, Bell MS. *Annals of Thoracic Surgery.* 2007 Mar;83:1162-5.**

A published study of ABRA Adhesive Skin Closure reported an initial series of 3 patients who underwent dynamic wound closure after extensive debridement for sternal wound infection on an outpatient basis, saving hospital costs. "All patients achieved satisfactory healing with a mean duration of 29 days of treatment without additional procedures. ... Dynamic wound closure is an effective and feasible method of dealing with the open sternotomy wound after debridement."

**2. *Scalp Expansion with the Canica Wound Closure System: First case report.* Dal Cin A, Seal SKF. *Canadian Journal of Plastic Surgery.* 2006 Winter;14(4):233-235.**

The hair-bearing scalp is unique in that no other tissue in the human body can adequately simulate it. This case highlights a patient treatment where ABRA Adhesive Skin Closure was used for pre-surgical skin expansion of the scalp and the subsequent successful closure of an 8.5 x 7.5cm large defect following a resection for a Clark level V melanoma.

**3. Early Results Using a Dynamic Method for Delayed Primary Closure of Fasciotomy Wounds.** Taylor RC, Reitsma BJ, Sarazin S, Bell MSG. Journal of the American College of Surgeons. 2003 Nov;197:872 – 878.

The first published study summarizing the early results of using dynamic wound closure was a five case (six incision) series at The Ottawa Hospital, ON, Canada. This study outlined how dynamic wound closure uses the biomechanical properties of human skin including biological and mechanical creep to close the skin. “...early results with the dynamic wound closure method have demonstrated cosmetically acceptable, delayed primary closure of difficult fasciotomy wounds in a timely matter.”

**4. Peri- and Preoperative Use of Adhesive Skin Expanders Can Facilitate Resection and Improve Cosmesis in the Management of Selected Cutaneous Malignancies.** Hristov H, George R. Division of Surgical Oncology, Cancer Centre of Southeastern Ontario and Queen’s University, Kingston, ON, Canada.

- Abstract Published: Canadian Journal of Surgery. 2005 Aug;48(Suppl.):19.
- Poster Presentation: Canadian Association of General Surgeons Forum, Montreal, QC, Sep 8-10, 2005.

Seven primary or recurrent cutaneously based malignancies are described, including scalp, chest wall, upper back, lower leg, calf and elbow locations. All had application of adhesive skin anchors in the pre- and perioperative setting. Wide excisions were all completed without skin graft or flap construction, with good cosmesis. Pre- and perioperative use of ABRA Adhesive Skin anchors facilitate the wide excision and primary closure of primary and recurrent cutaneous based malignancies in selected difficult cases.

**5. Management of a Giant Omphalocele with an External Skin Closure System.** Baird R, Gholoum S, Laberge JM, Puligandla P. J Pediatric Surgery. 2010 Jul;45(7):E17-20.

“Discussion: The use of a dynamic reduction skin closure device [ABRA Adhesive Skin Closure] has not been documented previously in the pediatric population or in the context of a congenital defect. We describe the use of an external surgical skin closure device in the context of the staged closure of a giant neonatal omphalocele and postulate that such a device may prove useful in the treatment of other congenital tissue defects.”<sup>5</sup>

Copies of these and other supporting references are available from Canica Design on request.