

The Bolster Dressing: A Novel Dressing Technique for Scalp Surgery

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Abstract

Introduction: Postoperative dressings of the scalp are cumbersome to apply especially when the patient is still anesthetized. They are difficult to maintain in the postoperative period, often leading to displacement of the dressings with exposure of the incision line to the external environment. *Case Report:* Here we present a case report of a patient who underwent acrylic cranioplasty for whom a bolster dressing was used following surgery. *Conclusion:* The use of a bolster dressing to cover wounds over the scalp is easy, safe and cosmetic.

Keywords: Bolster; Cranioplasty; Postoperative Dressing; Cosmesis.

Introduction

Traditional dressings for cranioplasty consist of placing pads over the suture line and wrapping the pads with roller gauze to hold them in place. Such dressings are bulky and uncomfortable for the patient. They tend to get displaced very easily exposing the suture line to the external environment making it easier for infection to occur. They are very unsightly and cause social discomfort to the patient.

The bolster dressing is commonly used following skin grafting to keep the graft in contact with the bed. In the classic tie over dressing, the stitches are intentionally left long to facilitate tying over of the sutures on the gauze placed over the graft [1].

Here we present the use of a similar concept as a

dressing modality in patient who underwent acrylic cranioplasty.

Case Report

A Forty Five year old male patient presented to the outpatient department with a right fronto temporo parietal calvarial defect since one and a half years following a craniectomy for extradural hematoma.

Routine pre-operative workup was done including a Computed tomography scan of the skull with 3D reconstruction and a magnetic resonance imaging of the brain. A polymethylmethacrylate plate was fashioned and the patient posted for acrylic cranioplasty.

Patient underwent laser assisted cranioplasty and the incision line was closed with staples. A 14 Fr suction drain was inserted. Following this, bites were taken with 3-0 Prolene across the suture line at multiple points as shown in the figure. Ointment was applied, Vaseline gauze placed over the suture line and gauze placed. The sutures were then tied over the gauze to hold the dressing in place. One limb of the suture was kept long after placement of knot to facilitate repeat knotting when the dressing was reapplied the second time. The long ends of the suture were held in place with adhesive tape and a sterile, adhesive transparent film was placed over the dressing. During wound inspection postoperatively, the suture was cut in such a way so as to leave the knot in the long arm of the suture. The wound was inspected, dressing changed and the knot reapplied to keep the dressing in place.

Discussion

Dressings are a routine after any surgery. The main

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purpose of a dressing is to keep the suture line sterile, preventing it from external infection[2]. The dressing also absorbs postoperative bleeding, absorbs any exudates from the wound, protects newly formed tissue and reduces the pain [3].

Regular dressings for cranioplasty or any surgery on the scalp are very bulky. Turban dressings are not appealing to patients [4]. Smaller dressings cannot be used as adhesive tape fails to stick to the hair bearing scalp thus necessitating the use of bulkier dressings on the scalp even when the incision line is small. In addition, use of adhesive elastocrepe dressings cause excoriation of the skin and pain on removal of the adhesive tape. Circumferential dressings over the scalp are known to occasionally cause ulcerations on the skin [5]. Great care also needs to be taken to protect the ears while applying a circumferential scalp dressing as there can be inadvertent ischemic necrosis[6].

The use of bolster technique in the dressing of the scalp wounds allows us to use a small dressing which is cosmetic. It helps the dressing to stay in place preventing undue displacement of the dressing and exposure of the suture line to the external environment. It enables us to visualize the scalp flaps,



Fig. 1: postoperative picture showing suture line closed with staples



Fig. 2: sutures in situ before placement of the bolster dressing



Fig. 3: bolster dressing in situ



Fig. 4: first wound inspection



Fig. 5: Bolster dressing reapplied after wound inspection

thus allowing us to monitor the flap easily and detect any necrosis of the skin earlier.

It avoids a circumferential dressing around the scalp thus preventing pressure necrosis. It also, does not compress on the ear thus preventing ischemic necrosis.

Conclusion

With our experience in the use of bolster technique as a dressing method, we would like to advocate the use of such dressings not only on the scalp but any area where in the body where fixation of a routine dressing would be difficult.

It is a safe, effective and cosmetic means of dressing wounds.

Conflict of Interest

The authors declare that there is no conflict of interest or financial interests.

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