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Letters to the Editor

Modified Zimmer finger splint revisited

Sir,

Isolated fractures of the zygomatic arch are usually treated with closed reduction, often through a Gillies' temporal incision. Unstable or comminuted fractures of the arch, however, pose a problem. Surgical approaches to the zygomatic arch involve risks of scarring and damage to the facial nerve. A relatively simple technique such as the external modified Zimmer finger splint can be used to treat unstable or comminuted fractures of the zygomatic arch with good results.

There have been many descriptions of external splinting devices, such as a length of endotracheal tube, or an aluminium splint secured to the arch with wires and sutures.[1,2] Internal support of the arch has been described using a Foley catheter with the balloon inflated.[3] There is, however, the disadvantage that the balloon supports only a small area of the arch, and a risk of it perforating from the sharp bony edges.[2] The disadvantages of external splints are first, the possibility of necrosis of the skin caused by pressure from the splint; secondly long-term trismus as a result of damaging the temporalis on the arch where the circumferential wires or sutures have inadvertently penetrated the muscle; and thirdly the potential for "cheese-wiring" through bone and skin.[2,4]

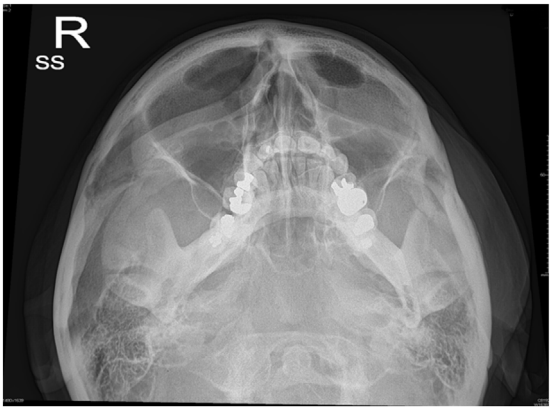

Fig. 1. Radiograph of the occipitomental view that shows the fractured left zygomatic arch.

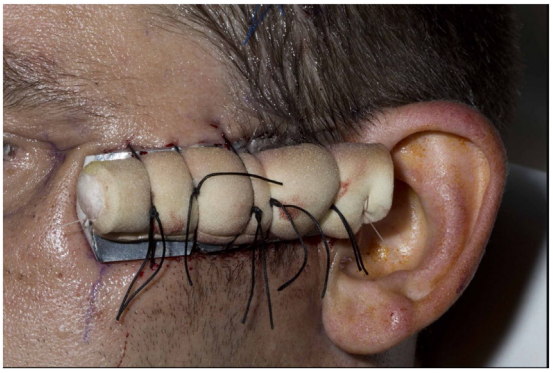

Fig. 2. Photograph of the modified Zimmer splint in place.

Case report

We treated a 36-year-old man who had presented with a depressed and comminuted fracture of the left zygomatic arch. We raised it under general anaesthesia through a Gillies' temporal incision and with a Rowe's temporal elevator and, as it was unstable, placed external indirect reduction and fixation using a modified version of the Zimmer finger splint[2] and secured it with 0/0 non-absorbable circumzygomatic sutures (on a large, curved, round-bodied needle). The splint has a pliable aluminum outer surface and soft compressible foam on the underside, and we placed it along the length of the zygomatic arch (Figs. 1 and 2).

This modification differs from one described by us in 2007.[2] First, we prepared notches along the upper and lower edges of the splint with heavy scissors to act as securing and anchoring points for the sutures. Secondly, the splint had a cushion of cotton wool rolls in gauze covered by a Lyofoam™ (Mölnlycke Health Care) dressing on the outer surface next to the aluminum, so that sutures could be tied on the surface to allow an even pressure to be spread along its whole length. Thirdly, we secured it with multiple circumferential sutures (instead of the two that we had used in the past) to improve the stability of the splint and reduce any potential mobility. The splint was removed after three weeks. A good reduction of the zygomatic arch was confirmed clinically and radiographically after the splint had been removed.

https://doi.org/

Conclusion

The modified external Zimmer finger splint offers a simple alternative to internal fixation of unstable fractures of the zygomatic arch, which is appreciably more complicated and has greater morbidity.

Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patient's permission

Ethics approval not required. The patient's consent was obtained.

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Bilateral retro-orbital metastases arising from primary squamous cell carcinoma of the anterior scalp

Sir,

Cutaneous squamous cell carcinoma (SCC) is the second most common form of skin cancer and its global incidence continues to increase. The overall rate of metastatic cutaneous SCC is about 5%, but certain adverse features accelerate this such as poor differentiation, lymphovascular invasion, and increased thickness of the tumour.[1] Metastasis into the lymph nodes in the head and neck follows well-described patterns, and the superficial lymphatic system is most relevant to this spread. Most SCC of the anterior scalp first metastasise to the parotid gland, and most of the rest to the lateral neck.[2] Posterior scalp SCC will metastasise initially to the postauricular, occipital, or level V nodes.

We present an unusual case of cutaneous SCC of the vertex of the scalp that metastasised to the bilateral retrobulbar regions.

An 85-year-old man was referred to us by his ophthalmologist with a month-long history of deteriorating vision and proptosis. Nine months previously he had had a moderately differentiated SCC (33 × 24 mm in diameter, 6.5 mm thick) excised from the anterior scalp, followed by reconstruction with a split thickness skin graft. The peripheral clearance was 7 mm, the deep margin was reported as 0.1 mm, and the bone underneath the lesion had been drilled away to provide a clear, deep margin. The multidisciplinary team recommended no further treatment.

Clinically the patient presented with bilateral proptosis, restriction of motility with visual acuity of 6/36 unaided in the right eye, but only perception of light in the left. Magnetic resonance imaging showed a retrobulbar lesion in each orbit (Fig. 1). The lesion in the right retro-orbital region was compressing the optic nerve, and both seemed to be infiltrating, with low density attenuation. A biopsy examination of the left orbital lesion confirmed a diagnosis of SCC and, given the history, it was most likely to be caused by metastatic deposits from the SCC of the scalp. Because of the extent of the disease and the patient's coexisiting conditions, we decided on palliative management.

Although metastatic carcinoma in the orbit has been well described,[3] it is rarely from a primary cutaneous SCC of the head and neck.[4] The most common primary lesions are in the breast, lung, and genitourinary tract, and a possible

Fig. 1. Axial view of a computed tomogram of the head.