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.

References

1. Jones GM, Speculand B. A splint for the unstable zygomatic arch fracture. *Br J Oral Maxillofac Surg* 1986;**24**:269–71.
2. Graham RM, El-Rasheed A, Lowry JC. The Zimmer splint revisited. *Br J Oral Maxillofac Surg* 2007;**45**:432–3.
3. Podoshin L, Fradis M. The use of foley balloon catheter in zygomatic-arch fractures. *Br J Oral Surg* 1974;**12**:246–8.
4. Veale B, Varley I, Lee N. Management of the unstable isolated zygomatic arch fracture: a case study and review of the literature. *Oral Surg* 2014;**8**:54–8.

P. Padaki *
R. Graham
North Manchester General Hospital, Delaunays Road, Crumpsall, Manchester M8 5RB
G. Markose
Royal Preston Hospital, Sharoe Green Lane, North Preston PR2 9H
* Corresponding author.
E-mail address: ppadaki2000@yahoo.co.in (P. Padaki)
Available online 28 March 2019
https://doi.org/10.1016/j.bjoms.2019.01.017

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.

anatomical route is vascular invasion through the angular or supratrochlear venous system. To the best of our knowledge this is the first time that this particular presentation has been reported (Fig. 1).

Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patient's permission

Ethics approval was not applicable. The patient's permission was obtained.

References

1. Joseph MG, Zulueta WP, Kennedy PJ. Squamous cell carcinoma of the skin of the trunk and limbs: the incidence of metastases and their outcome. *Aust NZ J Surg* 1992;**62**:697–701.
2. Veness MJ. High-risk cutaneous squamous cell carcinoma of the head and neck. *J Biomed Biotechnol* 2007;**2007**:80572.
3. Ferry AP, Font RL. Carcinoma metastatic to the eye and orbit. I. A clinicopathologic study of 227 cases. *Arch Ophthalmol* 1974;**92**: 276–86.
4. Day T, Hoasjoe DK, Herbert RL, et al. Head and neck squamous cell carcinoma metastatic to the orbital apex. *Skull Base Surg* 1995;**5**: 123–9.

J. Mc Ternan *
O. Mitchell
V. Ilankovan
Poole Hospital Foundation Trust
* Corresponding author. Tel.: +44 7562767857.
E-mail addresses: mcternaj@tcd.ie (J. Mc Ternan), omitchell241@gmail.com (O. Mitchell), Velupillai.ilankovan@poole.nhs.uk (V. Ilankovan)
Available online 28 March 2019
https://doi.org/10.1016/j.bjoms.2019.03.002

Single-unit short dental implants. Would they survive a long period of service?

Sir,

There is increasing evidence to support the use of short dental implants in the rehabilitation of missing teeth with implant-supported prostheses.[1] Although splinting is not possible with a single-unit implant, several studies have documented good clinical outcomes in the short-term that favour the use of short implants to support single-tooth restoration.[1,2] In 2002, we treated three patients, who were 44, 40, and 51-years-old, and were missing either a premolar or molar. They each had an implant 8.5 mm long, with surgical abutment in place, and non-submerged healing was allowed. A porcelain-fused-to-metal crown was cemented on to the post of the abutment. After 16 years, the implants were still in place and the loss of marginal bone was between 0.23 and 0.48 mm.

Nowadays, our patients live longer and dental implants are required to function for longer, so we wondered if single-unit short implants would survive a lengthier working period. This necessitates long-term follow-up of single-unit short implants, and we know of few studies that have reported long-term outcomes. The definition of the length of a short implant has varied over time between 10 mm and under, and less than 6 mm.

At follow-up one year later, Gulje et al described the absence of differences in the survival of 6 mm and 11 mm implants (associated with maxillary sinus lift) supporting a cement-retained crown.[1] At the 3-year follow-up, two randomised controlled trials have reported that short (6 mm long) implants functioned as well as standard length implants with regards to survival and loss of marginal bone.[2,3]

However, at the 5-year follow-up, Rossi et al reported that more short implants (6 mm) were lost in comparison to those 10 mm long.[4] Naenni et al reported similar outcomes, in which 6 mm implants had poorer survival after five years.[5] These outcomes indicate the need for more evidence (long-term follow-up) to support that for short implants to support the restoration of crowns., It seems that the length of the implant has no influence on the loss of marginal bone.[4,5]

Studies with high-quality scientific evidence (Levels I and II) are still needed to support the use of short dental implants as single-unit implants.

Conflict of interest

EA is the Scientific Director of BTI Biotechnology Institute (Vitoria, Spain). He is the head of the Foundation Eduardo Anitua, Vitoria, Spain. MHA is a researcher at BTI Biotechnology Institute (Vitoria, Spain). No funding was received for the conduct of this study.

Ethics statement/confirmation of patients' permission

Neither was applicable.

References

1. Guljé FL, Raghoebar GM, Vissink A, et al. Single crowns in the resorbed posterior maxilla supported by either 6-mm implants or by 11-mm implants combined with sinus floor elevation surgery: a 1-year randomised controlled trial. *Eur J Oral Implantol* 2014;**7**:247–55.
2. Sahrmann P, Naenni N, Jung RE, et al. Success of 6-mm implants with single-tooth restorations: a 3-year randomized controlled clinical trial. *J Dent Res* 2016;**95**:623–8.