

## Review

# A synopsis of technical notes published in the British Journal of Oral and Maxillofacial Surgery in 2009/2010

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## Abstract

Technical notes form an important part of the British Journal of Oral and Maxillofacial Surgery (BJOMS). Many ideas are novel and some change practice. During 2009–2010, 39 technical notes were published in the journal, and they covered the whole remit of the specialty. In this article we briefly review and summarise these articles, and highlight the salient points.

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## Introduction

This article provides a summary of the 39 technical notes published in the British Journal of Oral and Maxillofacial Surgery (BJOMS) during the period 2009–2010. They covered the whole remit of the specialty. In a similar review published in 2009 covering the years 2007–2008, we found that an almost identical number of articles (44) had been published.<sup>1</sup> This confirms that both submissions and publication of these useful articles remain fairly constant. We have summarised them by subspecialty (Table 1).

## Maxillofacial trauma

Six technical notes were published on maxillofacial trauma, and they contained information on assessment, imaging, intraoperative management, and postoperative wound care.

Banks et al. published a standardised method for describing the bony extent of orbital floor fractures based on transverse and sagittal dimensions.<sup>2</sup> The transverse bony limits of the fracture can be represented by a “clock face” connotation, while the anteroposterior extent is calculated by coronal computed tomography (CT) using 2 mm slices.

A classification of fractures of the condylar head was proposed by Loukota et al. to simplify the decision-making process on when to do open reduction and internal fixation (ORIF).<sup>3</sup> In consideration of diacapitular type-1 and type-2 fractures, the authors recommended ORIF for type-1 fractures (ramus shortening). The Strasbourg Osteosynthesis Research Group (SORG) has accepted their classification.

Mustafa et al. described the role of Mimics<sup>®</sup> software (Materialise NV, Leuven, Belgium) in aiding the construction of custom-made orbital floor implants.<sup>4</sup> The technique uses a “mirror-image” of the unaffected orbit, or sinus volume to construct a customised plate.

Sadiq et al. recommended cone-beam CT as an improvement on traditional methods of imaging for the accurate location of fragments of glass in facial injuries.<sup>5</sup>

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Table 1  
Breakdown of technical notes by subspecialty.

Subspecialty	No. (%)
Trauma	6 (15)
Head and neck oncology	8 (21)
Reconstructive surgery	5 (13)
Facial deformity	6 (15)
TMJ	2 (5)
Salivary gland disease	2 (5)
Dentoalveolar	3 (8)
Miscellaneous	7 (18)
Total	39

Schneider et al. reported a technique of accurately reducing diacapitular fractures using a repositioning pin in the proximal segment, which minimised disruption to the soft tissue and blood supply.<sup>6</sup>

Putti et al. recommended cricothyroid cannulation for both trauma and head and neck oncology cases where there is potential risk of postoperative respiratory embarrassment.<sup>7</sup> The procedure can be done by the surgeon or anaesthetist, with jet ventilation tubing connected only when required.

### Head and neck oncology

Eight technical notes relating to head and neck oncology were published in 2009–2010. They included five on intraoperative methods, one on an aid to imaging, and one on postoperative recovery.

Buccal mucosal tumours can sometimes be difficult to evaluate on imaging because the mucosa tends to collapse against the gingiva and teeth when patients are positioned in the scanner. To improve the magnetic resonance imaging (MRI) of buccal tumours, D'Sa et al. suggested the routine placement of a gauze swab in the buccal sulcus to hold the mucosa away from the teeth.<sup>8</sup>

In an attempt to avoid difficulties in access associated with tracheostomy during bilateral neck dissection, Prabhu and Akhtar reported the intraoperative use of a streamlined laryngectomy tube, which can be replaced with a standard tracheostomy device at the end of operation.<sup>9</sup>

Andi et al. proposed a modified Weber–Ferguson flap technique to preserve the infraorbital neurovascular bundle.<sup>10</sup> On raising the medial aspect of the flap, the infraorbital foramen is localised and two vertical osteotomies are made from the foramen into the orbital floor. The bony roof of the foramen is then removed and the nerve skeletonised. Another bone-related technical note was by Collin and McLennan who suggested an oblique paramedian mandibulotomy with four predrilled holes to optimise reduction and stability.<sup>11</sup>

Mehanna et al. focused on the aesthetic and functional soft tissue demands of a lip-split mandibulotomy,<sup>12</sup> and recommended a cutaneous “zigzag” incision followed by a vertical

muscle incision. They also suggested mucosal stop cuts to prevent the propagation of mucosal tears during mobilisation of the subsequent osteotomy. Mohindra and Blanco-Guzman described the use of K-wires in mandibular resection to aid accurate bony reduction when exophytic masses prevent precontouring using a plate.<sup>13</sup>

After the postoperative removal of a tracheostomy tube there is a risk of surgical emphysema and delayed healing of the stoma. To minimise these complications, Gudka et al. proposed using an electrocardiogram (ECG) sticker on the stoma dressing directly over the aperture.<sup>14</sup> This novel method gives patients positive tactile feedback to enable them to apply digital pressure correctly over the stoma during speech and coughing. Another note related to tracheostomy described a suction technique to reduce contamination of the lower airway from oropharyngeal secretions.<sup>15</sup>

### Reconstructive surgery

Five technical notes were published on reconstructive surgery including suggestions for choice of flap, improving operating efficiency, and improving microvascular outcomes.

Jung et al. described a modified Kubo's method to correct cryptoptia using a V–Y–Z flap to provide additional skin.<sup>16</sup> The resulting lower hairline can be resolved using a depilation laser. When reconstructing or augmenting posterior defects of the maxillary alveolus, Moharamnejad et al. proposed the use of a coronoid-temporalis muscle pedicle flap.<sup>17</sup> The myoosseous flap can be raised intraorally and delivered to the recipient site through a mucosal tunnel.

Sood et al. suggested a technique to prevent the donor site being contaminated by a soiled free-flap template.<sup>18</sup> The customised template was sandwiched between two sheets of transparent sterile dressing.

Avery and Clifford recommended the placement of a quiver on the patient's free finger during radial forearm surgery to improve surgical ergonomics.<sup>19</sup>

The quality of vessels for microanastomosis in scarred or irradiated necks is a serious problem. Numajiri et al. reported the success of using the thoracoacromial artery as the recipient vessel for free jejunal transfer in the irradiated neck.<sup>20</sup> Other vessels (such as the transverse cervical) should not be forgotten as potential recipients.

### Facial deformity

There were six articles published during 2009–2010 on areas including the construction of models, osteotomy techniques, and distraction.

Two papers focused on the construction of models. The first, a proponent of “in-house” three-dimensional prototyped construction, reported the benefits and costs of department-based production compared with external sourcing.<sup>21</sup> Russell et al. advocated the use of polyurethane resin in the

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