Imaging in sinonasal tumours

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ABSTRACT
The imaging of sinonasal tumours by cross sectional computed tomography (CT) scan or magnetic resonance imaging (MRI) occurs for the most part within two clinical scenarios. The first involves the patient with nasal symptoms suggestive of chronic rhinosinusitis but unresponsive to medical therapy, and the second consists of a request to map the local extent of a tumour already observed at clinical examination. The goals of imaging are manifold, which will be discussed in this presentation and include: (1) Differentiation between tumour and fluid retention/mucocoeles, (2) Invasion of masticator space, pterygopalatine fossa Perineural tumour spread, (3) Invasion of masticator space, pterygopalatine, (4) Invasion of anterior skull base. Is the dura transgressed? (5) Involvement of middle cranial fossa. Is there perineural tumour spread? and (6) Consideration of few imaging features which may favour more specific diagnostic possibility.

Computer assisted and navigation in maxillofacial surgeries

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ABSTRACT
Correction of maxillofacial deformity as a result of trauma or ablative tumour surgery is an ongoing challenge for oral and maxillofacial surgeon. The use of digital techniques comprises of integration of many different technologies such as 3D-printing, virtual planning and surgery together with surgical navigation have emerged as a promising new frontier and insights in achieving true to origin reconstruction. The use of these technologies may also enhance the concept of individualised surgical planning for more fail-safe and consistent treatment outcome. Being complicated from surgical viewpoints, the applications of both computer-assisted and navigation techniques also require additional pre-surgical technicalities that often go beyond the boundaries of medical and surgical knowledge. This presentation is designed to highlight on how digital data from the diagnostic imaging can be further utilised for more and meaningful ways and to serve as „functional imaging" oral and maxillofacial surgical procedure. The example will include the use of computer-assisted and navigation technology in surgical procedure such as orbital reconstruction, quadripod zygomaticomaxillary complex fracture and oncological reconstruction.