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## Editorial

# Maxillofacial imaging and its contemporary importance

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Maxillofacial imaging is a very important tool for diagnosis, treatment and surgical planning as well as for post operative evaluation of patients with maxillofacial problems. Maxillofacial imaging starting from simple intraoral periapical radiograph to cone beam computed tomography, computed tomography and magnetic resonance imaging are tools for treating patients effectively and confidently. Even though the imaging confirms the history findings, still there are certain conditions in which the imaging modality is the key for thorough treatment planning. As often seen in temporomandibular joint disorders and in ortho-surgical cases where the entire surgical planning is based on accurate imaging findings.

There are currently many software available for evaluation of lateral cephalogram and orthognathic treatment planning. The accuracy of these softwares is very good when it comes for the diagnosis of various angles and linear measurements but three dimensional applicability of these in carrying out mock surgical procedures or surgical splint fabrication is still limited. Recently 3D prediction methods like 3DCT, 3D MRI and surface scan/cone beam CT have also been introduced and are in vogue currently. However, despite the promising capabilities of these techniques, lack of reference and normative data is a major limitation with them.<sup>1</sup>

Magnetic resonance imaging is very important tool for soft tissue evaluation as excellent contrast resolution is provided. The pathology evaluation and temporomandibular disk evaluation is done with ease. But for detailed study presently dynamic MRI is a better option.

Some biochemical pathologies can cause lesions which are not having visible morphologic changes. In such cases radionuclide imaging is used as it detects physiologic changes instead of anatomical changes.<sup>2</sup>

Now the latest concept of artificial intelligence-based imaging and analysis is the most interesting thing in making.<sup>3</sup> Artificial intelligence-based imaging methods integrate multimodality imaging methods with machine learning and clinical data to enhance precision medicine.

## 1. Conflict of Interest

None.

## References


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