"PRECISION OF COMPUTERISED PREDICTION TRACING IN ORTHOGNATHIC SURGERY"

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Computers are ubiquitous tools in modern society. Advances in computer Hardware and Software technology continue at a remarkable rate, break throughs in computing power, speed, graphic capabilities and storage capacity accelerate, while the ratio of hardware cost to performance declines often precipitously. These advances has precipitated the wide use of computers in modern orthognathic practice for the diagnosis and treatment planning of the various dentofacial deformities.

The efficacy of the diagnostic tools used in treatment planning has been of great concern for the maxillofacial surgeon dealing with dentofacial deformities. Quality assurance in maxillofacial orthopaedic surgery is largely related to the precision of the surgery and to the stability of the different procedures. Even though little is known about the precision of orthognathic surgery in relation to specific procedures very few studies have been undertaken to determine the magnitude and pattern of divergence between treatment planning and actual outcome.

Prediction tracings are an integral part of treatment planning in orthognathic surgery. The feasibility of the surgical plan can be confirmed with a prediction tracing which helps to assess the impact of planned surgical movements on hard and soft tissue structures. In addition it provides a visual estimate which is very much valuable during pre surgical discussions with the patient. Since the well-accepted manual methods tends to be time consuming and may be inaccurate, the applications of computers in the area of diagnosis and treatment planning may help in a great deal to precisely