

Maximizing Implant Stability in the Edentulous Maxilla: Innovative Use of the Anterior Maxillary Sinus Border

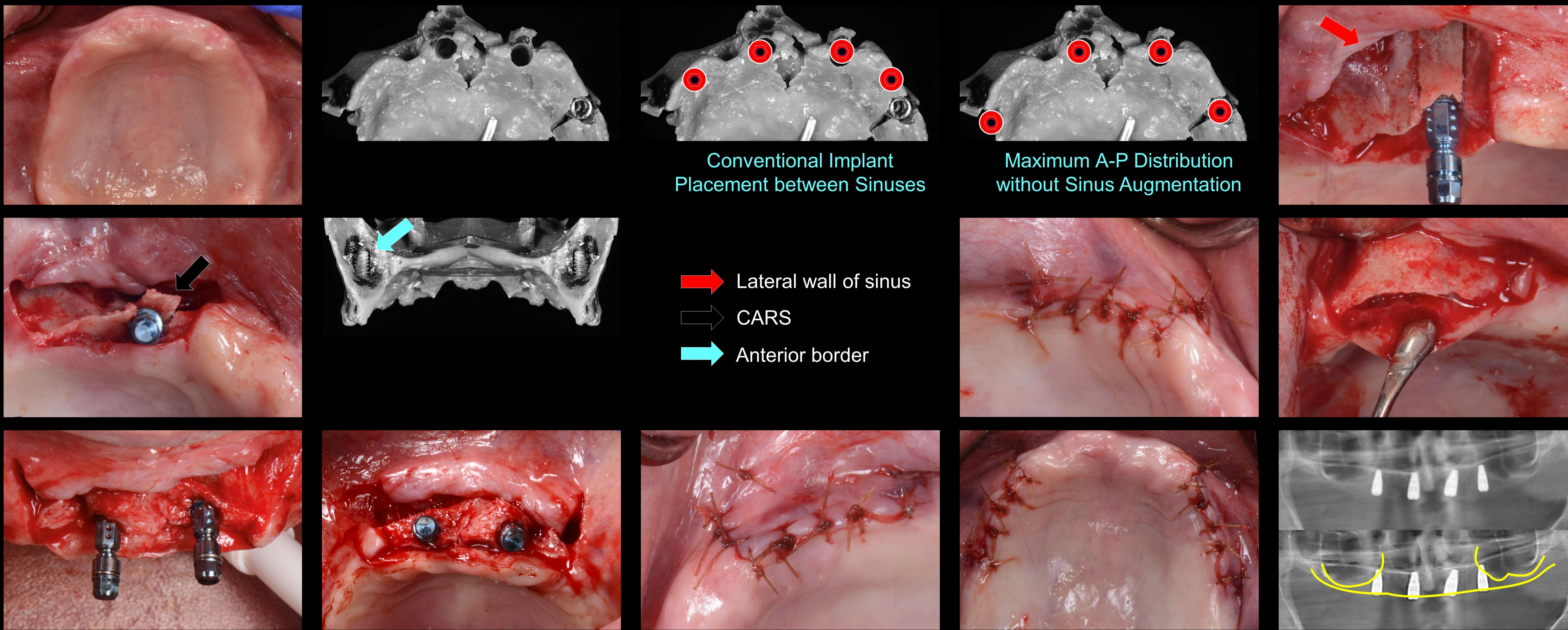
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...Research conclusively demonstrates that the **anterior wall of the maxillary sinus** is significantly thicker than the posterior sections. This **structural superiority** makes it an ideal site for implant placement, **maximizing initial stability** and ensuring effective **antero-posterior load distribution**—essential for successful full-arch maxillary restoration...

In fully edentulous maxillary arches, implant-supported fixed restorations are often not recommended due to significant bone resorption. Extensive ridge or maxillary sinus augmentation may not be viable options, particularly in elderly or medically compromised patients, due to the invasiveness of these procedures. In such cases, careful diagnosis and planning using both clinical and radiographic data are essential to ensure optimal implant positioning for stability and proper load distribution. Anteroposterior force distribution is critical for minimizing leverage, especially in the softer bone of the maxilla. However, traditional approaches are often constrained by the anatomy of the maxillary sinus,

limiting posterior implant placement. Research has shown that the anterior wall of the maxillary sinus is significantly thicker than the posterior sections, making it a valuable area for implant placement. Despite this, there is a lack of literature detailing techniques to maximize the use of the anterior wall of the sinus. This report introduces a new technique that leverages the anterior border of the maxillary sinus to enhance implant stability, offering a promising solution for these challenging cases.

Key words: maxillary sinus augmentation, implant stability, antero-posterior (AP) load distribution, overdenture



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