Study Title	**Mixing Allograft and Xenograft for a Predictable Alveolar Ridge Preservation Procedure: A Case Series** (COMPENDIUM October 2023 Volume 44, Number 9)
Study Type	Case Series
Therapeutic Area	Extraction Socket Management with Ridge Preservation
Authors	Samar Shaikh, BDS, MS; Annie Li; and Irina Dragan, DDS, DMD, MS, eMBA

Messaging Points

1. This case series, which included 11 clinical cases from 10 participants aged 27 to 85 years, illustrates that a combination of allogenic bone granules or fibers (vallos® allografts) and xenogeneic bone granules or blocks (Geistlich Bio-Oss® or Geistlich Bio-Oss® Collagen) can yield predictable outcomes in terms of both clinical and radiographic measures in Alveolar Ridge Preservation.

2. To achieve optimal results, it may be necessary to combine the favorable properties of different bone substitutes.

3. Combining various sources of graft material to leverage their respective strengths, such as the osteoinductive properties of allografts and the long-term osteoconductivity of xenografts, can enhance the predictability of outcomes after ARP.

4. In all cases, a minimum of 120 days elapsed between ARP and the implant procedure. Complete radiographic bone fill was observed in the CBCT images of all extraction sites, obviating the need for additional bone augmentation at the time of implant placement.

What Sets This Study Apart?

This study is distinctive in its demonstration of the successful use of a mixture of allogenic and xenogenic bone substitutes to maintain ridge dimensions following tooth extraction, facilitating optimal implant placement. Notably, there is a scarcity of studies reporting the combined use of allografts and xenografts for this purpose.

Have Other Ratio Combinations of Xenograft and Allograft Been Studied Before?

Serrano et al. conducted a comparative analysis of clinical and histomorphometric outcomes using a combination of allograft and xenograft with both 50/50 and 70/30 xenograft/allograft ratios, employing a mixing approach. Similarly, the utilization of a 50/50 allograft/xenograft ratio in this study resulted in successful implant placement with primary stability maintained for a minimum of 4 months, without the need for additional grafting.

What Was Used to Hydrate the Bone Graft Materials?

The bone graft materials were hydrated using one of the following:

- Saline
- The patient's blood
- Recombinant human platelet-derived growth factors (GEM 21S®, Lynch Biologics, lynchbiologics.com)

Geistlich Pharma North America, Inc.
400 Alexander Park Drive | Suite 302 | Princeton, NJ 08540
T 855-799-5500 | F 609-779-6565
geistlich.us | info@geistlich-na.com
GB-3118-23E