

**【Title】**

Combination treatment of Hyaluronic acid injection and Cryolipolysis for lower face contouring

**【Abstract】****Background**

Jawlines change with age. Re-shaping jawlines to be smooth, greatly increases facial aesthetics. As patients age, changes of jawline are caused by fat tissue drooping and mandibular bone absorption. Current practices inject hyaluronic acid along the jawline to make up for jawbone atrophy. However, for cases where the borderline of neck and mandibular bone is ambiguous due to excess fat tissue, our approach is to re-shape jawlines by reducing submental fat followed by hyaluronic acid injection. Here we report four cases treated with this combination therapy.

**Method**

We performed two treatments of Coolsculpting separated by an interval of two months. We injected hyaluronic acid two months after the Coolsculpting treatment in four patients. We present photos and results analyzed with 3D image analysis software of these cases contrasting the before and after effects of this combination therapy.

**Results**

Using the Coolsculpting-first approach resulted in clearer jawline definition prior to hyaluronic acid injection - allowing us to use less volume of hyaluronic acid to achieve an improved result.

**Conclusion**

Our experience demonstrates that it is more effective to approach lower face contouring by reducing submental fat using Coolsculpting followed by hyaluronic acid injection. This is especially effective for patients with excess submental fat tissue. Because contouring of the lower face and jawline contributes greatly to overall facial impression, this non-invasive combination therapy is especially effective in those patients who are rich in submental fat.