



Clinical anatomy of the face related to the filler injection& How can we prevent vascular compromise after filler injection

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■Abstract

It has already been passed 10 years since cosmetic surgical procedures using fillers has been introduced to Asia. The concept itself of 'filler' was unfamiliar, but the advantage that it is safer and effective gradually became well-known. Thus, it has recently become a representative procedure in the cosmetic surgery area. Filler is any material that can augment volume when injected into the body, and is usually an injectable material. Well-known fillers include hyaluronic acid products, collagen, paraffin, liquid silicon, etc. Fillers are usually classified by their components. Fillers can also be classified by their longevity: fillers with duration of less than 2 years are called temporary fillers, those with duration of 2 to 5 years are called semi-permanent fillers, and those lasting no less than 5 years after injection are called permanent fillers. In addition, fillers can be divided based on the mechanism of action, such as volumizing fillers and stimulatory fillers. Collagen and hyaluronic fillers in which the injected material itself constitutes the augmented volume are classified as volumizing fillers, and those which augment volume by stimulating fibroblasts to synthesize collagen or depositing fibrous tissues through inflammatory response are called stimulatory fillers. Most of the fillers introduced in Asia have a good safety profile. However, serious side effects such as granuloma formation or inflammation due to tissue reaction have been reported with several filler products, so it is necessary to select the desirable filler by understanding the characteristics of each product. The ideal filler should have no tissue reaction, is long-lasting, safe and easy to use, and have no intra-tissue migration or allergic reaction. Facial cosmetic surgery using filler can only be successfully performed if the surgeon has a good understanding of anatomy and is able to select the appropriate product for his purposes. Anatomically, the face is the most complicated structure of the human body. Especially, the structure of facial muscles including nerves and vessels is very variable and has the racial differences. Recently, the importance on the facial anatomy has been reconsidered as the interest on the

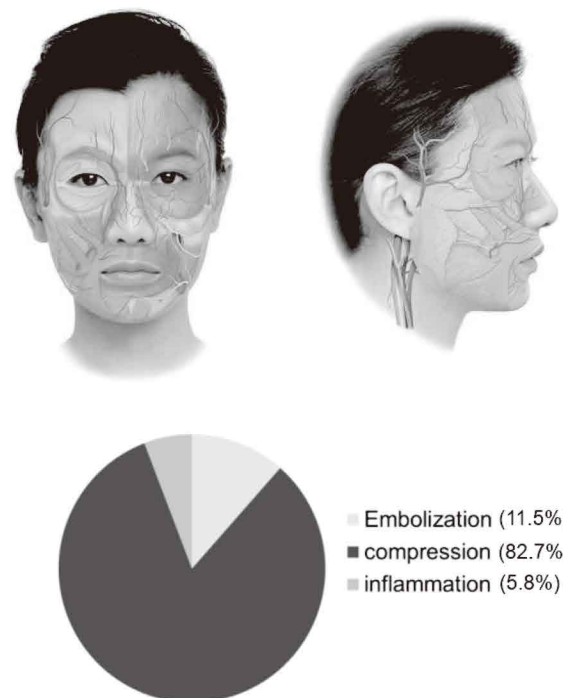


Figure 1.

caused by intra-arterial injection, 43 cases (82.7%) were caused by venous compression, and 3 cases (5.8%) were dermal injury caused by edema and inflammatory response (Figure 1). During the presentation, I will explain why vascular compromise develops and how we can prevent it in detail.