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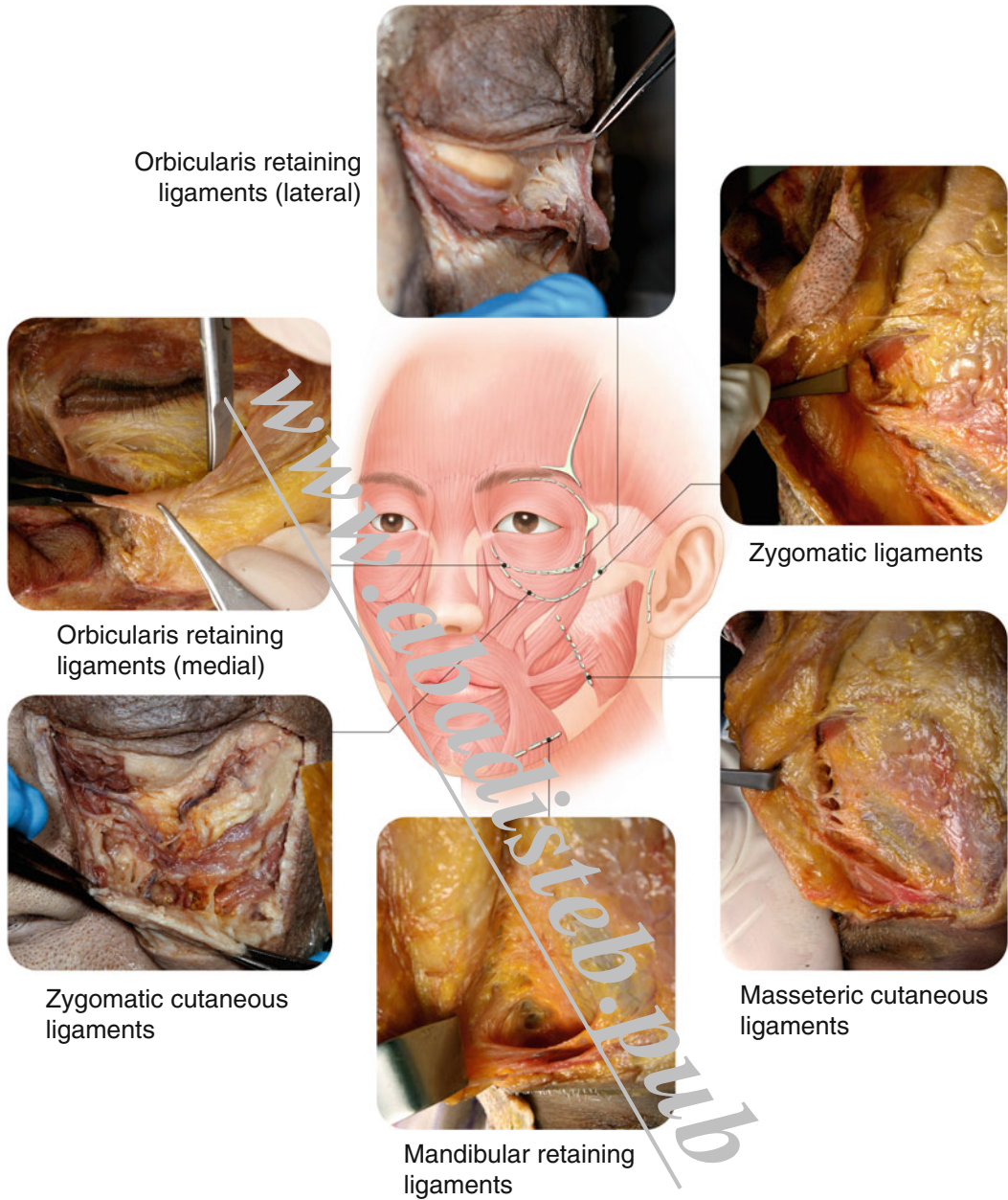
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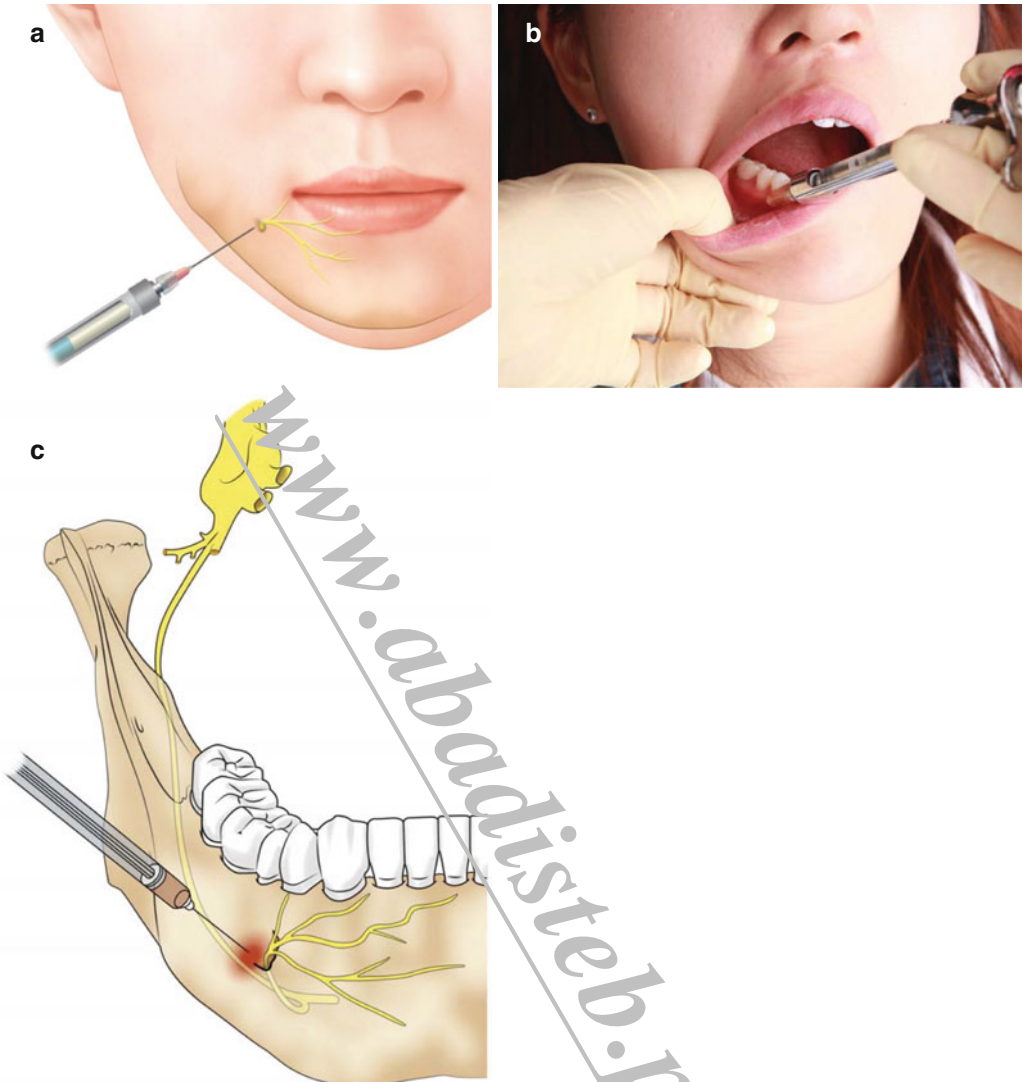
**Fig. 1.25** The retaining ligaments of the face (Published with kind permission of © Hee-Jin Kim and Kwan-Hyun Youn 2016. All rights reserved)

### Zygomatic Ligament

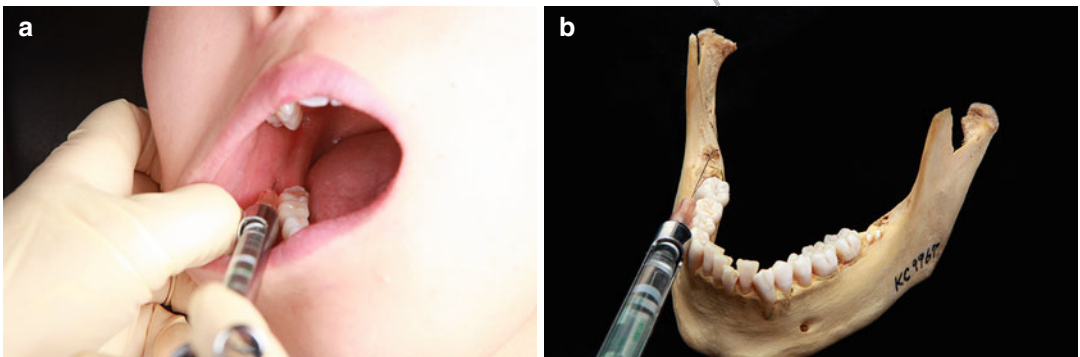
The zygomatic ligament, also known as the McGregor's patch, is located posterior to the origin of the zygomaticus minor m. This structure is a true retaining ligament that connects the lower margin of the zygomatic arch to the skin.

### Zygomatic Cutaneous Ligament

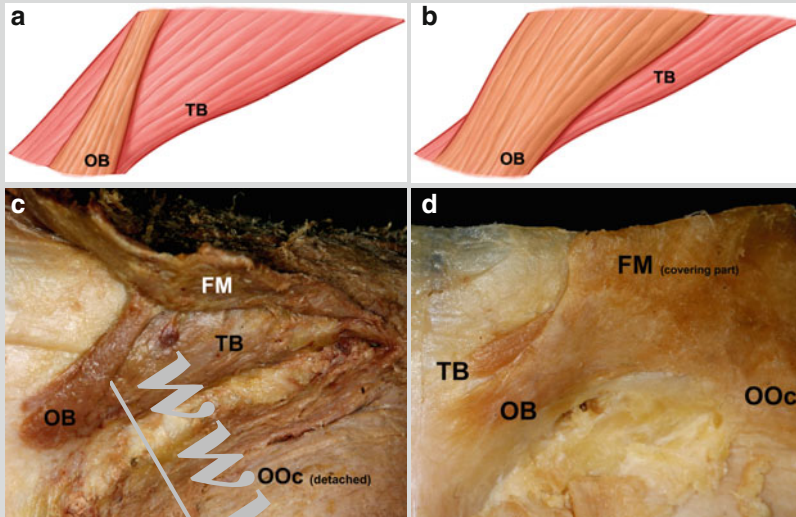
The zygomatic cutaneous ligament originates from the periosteum of the zygomatic bone, proceeds along the lower margin of the orbicularis oculi m., and attaches to the skin on the anterior portion of the zygomatic bone. The soft



**Fig. 1.34** Extraoral (a) and intraoral (b) approaches for mental nerve block. (c) an illustration showing the anesthetized area (Published with kind permission of © Hee-Jin Kim and Kwan-Hyun Youn 2016. All rights reserved)



**Fig. 1.35** Buccal nerve block (a, b) (Published with kind permission of © Hee-Jin Kim 2016. All rights reserved)



**Fig. 2.13** Two types of oblique belly (*OB*) of corrugator supercilii muscle (**a, c**) narrow vertical type, (**b, d**) broad triangular type. *TB* transverse belly *OB* oblique

belly, *OOc* orbicularis oculi muscle, *FM* frontalis muscle (Published with kind permission of © Hee-Jin Kim and Kwan-Hyun Youn 2016. All rights reserved)



**Fig. 2.14** Injection points of botulinum toxin for glabellar frown lines (**a**) standard form for Asian, (**b**) severe form for Caucasian (Published with kind permission of © Kwan-Hyun Youn 2016. All rights reserved)

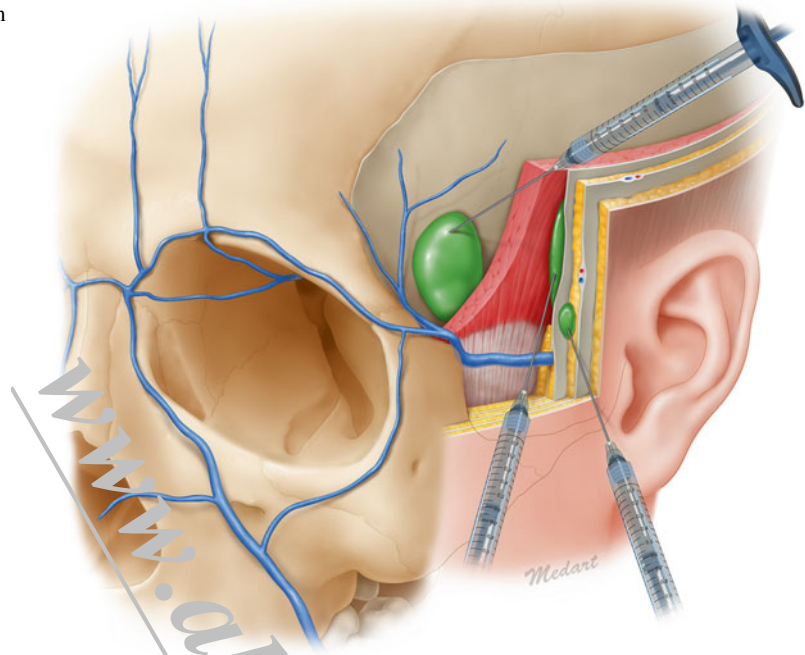
#### 2.2.4.2 Injection Points and Methods

It is recommended that an injection be made into the CSM after the needle tip comes into contact with the frontal bone and is slightly withdrawn since the CSM is located deep inside. 3 U (4 U for male) is injected around the upper border of the medial orbital rim just above the medial canthus, the insertion area for the CSM. 2 U is injected into the midpoint between the insertion area of the depressor supercilii and the nasion

(intercanthal midpoint) in order to treat the procerus and the depressor supercilii m. on each side (standard form for Asian (Fig. 2.14a)).

In Asians, the narrow vertical type of the oblique belly (*OB*) of the CSM is found in 63 % more frequently than 37 % of the broad triangular type. Moreover, the *OB* length is shorter than that of Caucasians. Therefore, injection of toxin only into the medial part of CSM as shown in a standard form for Asians would be

**Fig. 3.31** Deep injection of filler on the periosteum of the temporal fossa beneath the temporalis muscle (Published with kind permission of © Kwan-Hyun Yoon 2016. All rights reserved)



### 3.3.3 Side Effects

The pulse of the superficial temporal a. can easily be felt in front of the auricle. When injecting fillers into this area, it is advised that the path of the superficial temporal a. be considered by feeling its pulse. When injecting vertically into this area using a needle, caution is needed since the needle passes through multiple layers and can potentially damage blood vessels and even temporal bone. A lookout for hematoma is a good precautionary measure. Even though the use of a cannula is safer than a needle, it is recommended that the injection take place in an area with little to no vessels.

The locations of the sentinel v. and the middle temporal v. must be considered and avoided prior to the injection. Especially middle temporal v. runs parallel to the zygomatic arch passing between the superficial and deep layers of the deep temporal fascia. The middle temporal v. locates about 20 mm (one finger width) above the

zygomatic arch. When an excess of fillers is injected, the zygomaticotemporal n. can be compressed with the elevation of local pressure despite unapparent symptoms.

**Tip: Temple Filler Treatment** The temple is the region easy to pass over during facial aesthetic procedure. The necessity and effective of filler injection in the temple may not be apparent, especially among females, since the temple is often covered by hair.

Filler injections in the temple should be performed after evaluating the patient's entire face. For a person with a generally lean face, filler injection into the temple may not result in patient satisfaction. On the other hand, a patient with the depressed temple with prominent zygomatic arch is more likely to feel highly satisfied after filler injection into the temple region. Furthermore, a physician must accurately pinpoint which areas in the temple are depressed. Most importantly,