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Correspondence

Comments on “Filler rhinoplasty based on anatomy: The dual plane technique”

Dear Sir,

As mentioned by the author in his publication,¹ filler rhinoplasty is a common procedure among Asians. In their study, fillers were injected in different layers of the nose, and it provided good esthetic results. However, we wish to highlight points for caution during filler injection in the nose and steps to avoid related complications.

1. *Injection in the subcutaneous layer at the midline of the nose may not be safe:* Many articles recommend injection of fillers in the suprapariosteal layer^{2,3} (deep fat layer in this study). This is because the dorsal nasal artery is likely to course through the subcutaneous layer^{2,3} (superficial fat layer in this publication). The dorsal nasal artery is a branch of the internal carotid artery and is related to ocular complications from filler injection. Many studies show that the dorsal nasal artery crosses the midline of the nose, and filler injection in the midline of the nose is not completely safe, especially in the subcutaneous layer.^{2,3}
2. *Clinicians should not rely on injection using cannulas, especially small-bore cannulas:* The author used a 25 G cannula with an outer diameter of 0.51 mm for injection. According to previous studies, the average diameter of the dorsal nasal artery is 1–1.2 mm; therefore, 25 G cannula can perforate and locate the dorsal nasal artery in the subcutaneous layer during injection, which could cause serious complications.⁴ (Figure 1) Clinicians should be cautious even when using cannula for filler injections.
3. *Clinicians should manipulate cannula as little as possible:* The dorsal nasal artery and intercanthal vein are located in the subcutaneous layer; however, there might be anatomical variations, and the artery might be located in the deep fat layer.⁵ A cannula might encounter a blood vessel in every layer of the nose; hence, manipulation of the cannula must be minimized.
4. *Clinicians should consider rheologic properties of the fillers:* Filler injection in the suprapariosteal layer can cause filler migration owing to pressure in the nasalis muscle. However, this is not observed in every suprapariosteal injection, and may be attributed to the rheologic properties of the injected filler. Selection of a filler with high storage modulus (G') and/or high cohesiveness is recommended. The author used different products of Teosyal[®] but did not describe their rheologic data in this article. We previously suggested injecting high G' and/or high cohesiveness filler for nose augmentation (Table 1).⁵

Filler injection is an esthetic procedure; nevertheless, surgeons must be aware of possible vascular complications associated with the procedure.

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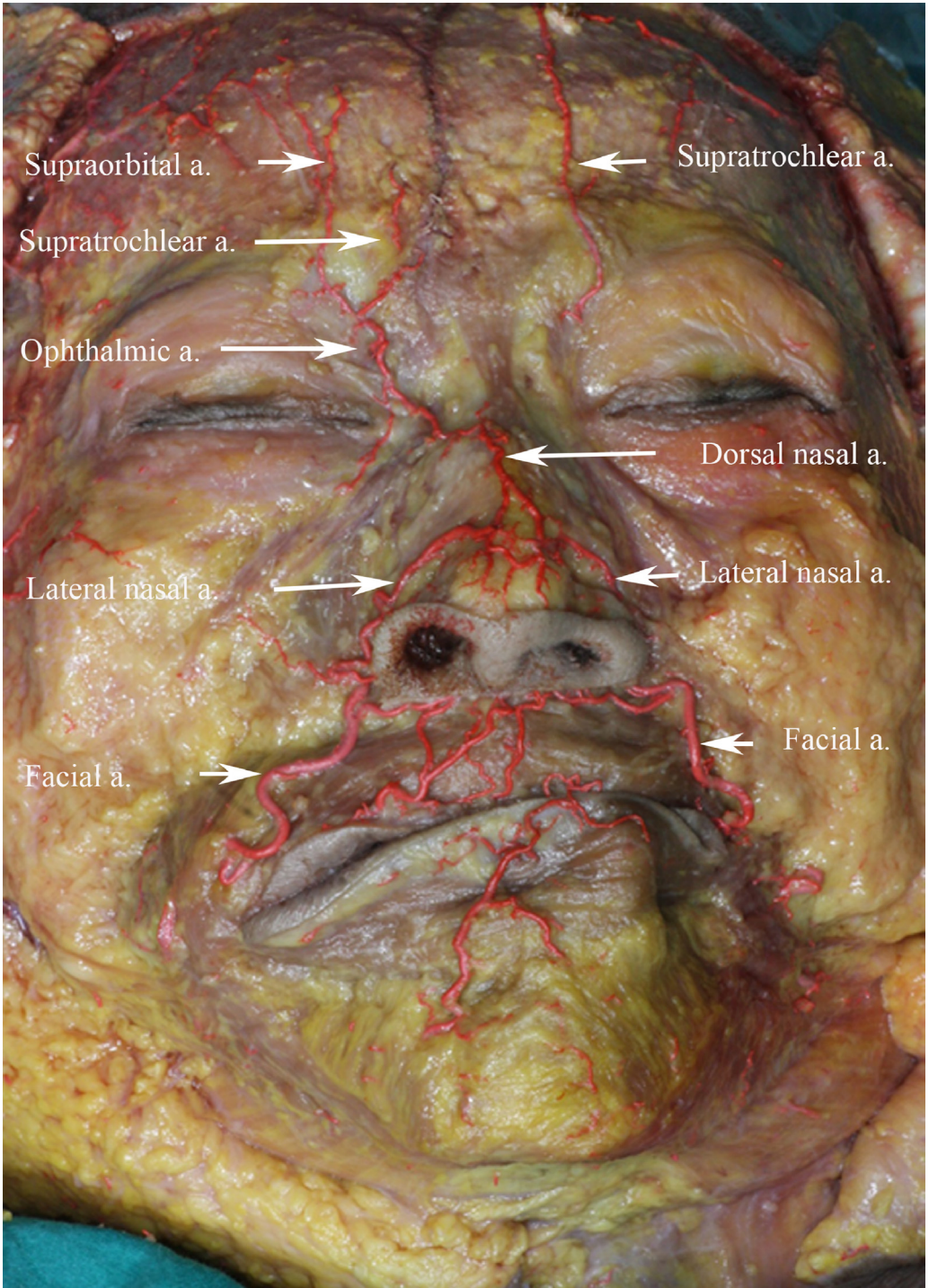


Figure 1. Dorsal nasal artery crossing midline in the subcutaneous layer of the nose. (Obtained permission from Tansattit et al.)

Table 1
Rheological properties of the hyaluronic acid filler (data from Ref. 5).

Product	G' (Pa)	G'' (Pa)	Complex modulus (cP)	Tan delta	Cohesiveness (N)
Restylane	349	145	378	0.4180	0.3509
Perlane	411	199	457	0.4849	0.2869
Restylane SubQ	768	245	806	0.3190	0.3387
Chaeum No. 1	76	28	81	0.3733	0.4888
Chaeum No. 2	146	29	149	0.2036	0.6716
Chaeum No. 3	232	52	238	0.2200	0.7474
Chaeum No. 4	340	68	347	0.2013	0.9180

Declaration of Competing Interest

The authors have no conflicts of interest.

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