Dermal Fillers in Facial Aesthetic Procedures – a systematic review of the rarer but more severe complications

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RESULTS

43 studies included in this systematic review.

9632 patients

9018 (93.6%) women

614 (6.4%) men

9836 injections

Type of dermal filler administered

9598 (99.75%) Hyaluronic Acid

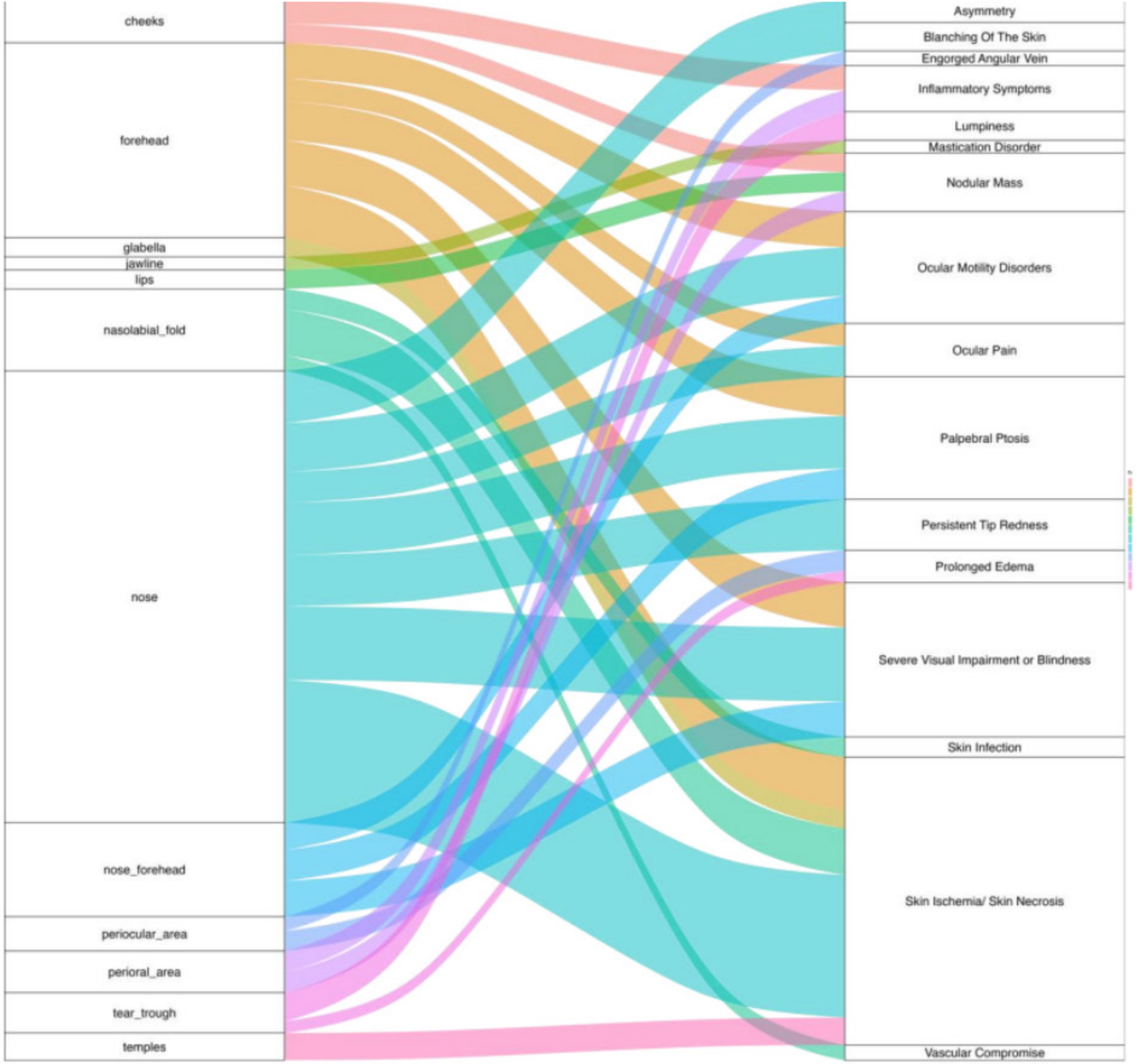
13 (0.14%) Polymethyl Methacrylate

7 (0.07%) Calcium Hydroxylapatite

2 (0.02%) Poly L-lactic Acid

1 (0.02%) Collagen

RESULTS



A total of 701 patients developed one or more complications, with 1116 complications reported.

Figure 1 - Alluvial plot representing how complications are distributed in relation to the different injection sites.

DISCUSSION

Vascular occlusion is the most severe complication associated with the use of facial fillers, leading to ischaemia and subsequent necrosis of the skin, a severe deficit in visual acuity, or even blindness [14, 15, 16].

750 complications (64.32%) were associated with vascular occlusion.

The injection sites more associated with these complications were the nose, glabella, forehead, periocular area, and temples, due to their central location within the risk zone of the face [13].

DISCUSSION

The **injection site** and **volume of the material used** are two of the most important risk factors for vascular complications after filler injections [5, 17].

Six facial danger zones [18-21]**:**

- Brow and glabellar region
- Temporal region
- Infraorbital region
- Lips/commissure
- Nasolabial fold
- Nose

Nose and nasolabial fold, are some of the locations with more injections administered and with more severe complications developed in our study.

We did not investigate differences in adverse effects related to filler volume, since most studies in this systematic review did not provide this information.

DISCUSSION

Among the 750 complications related to vascular occlusion,
428 were caused by embolisation of the ophthalmic artery

- 153 patients experiencing severe visual impairment or blindness;

- 115 cases of palpebral ptosis;
- 102 cases of ocular motility disorders;
- 51 cases of ocular pain;
- 7 cases of subconjunctival haemorrhage.

DISCUSSION

- 153 patients experiencing severe visual impairment or blindness. → Only 3 regained sight.
- 102 cases of ocular motility disorders; → 5 continued to exhibit restricted eye movement.
- 115 cases of palpebral ptosis;
- 51 cases of ocular pain;
- 7 cases of subconjunctival haemorrhage.

} Complete resolution of symptoms.

This poor prognosis for vascular occlusion affecting the ophthalmic artery is consistent with other studies that have reported a very rare improvement in visual acuity and almost complete resolution of most periocular signs [5, 32, 33].

DISCUSSION

Assembleia de Representantes aprova estratégia definida para 2024

Presidida por João de Deus, a Assembleia de Representantes reuniu no dia 11 de dezembro na Ordem dos Médicos no Porto.

Nesta Assembleia de Representantes foi aprovada a criação de:

– Colégio da Competência de Medicina Estética;
– Secção da Subespecialidade de Medicina Estética e Cosmética (Colégio da Especialidade de Cirurgia Plástica, Reconstrutiva e Estética);
– Secção da Subespecialidade de Medicina Estética e Cosmética (Colégio da Especialidade de Dermatovenereologia);