

THE NASAL ROOT: PROCERUS AND CORRUGATOR MUSCLES

The muscles of the nasal root are the depressor muscles: procerus muscle, corrugator and depressor supercilii.

PROCERUS MUSCLE, CORRUGATOR AND DEPRESSOR SUPERCILII

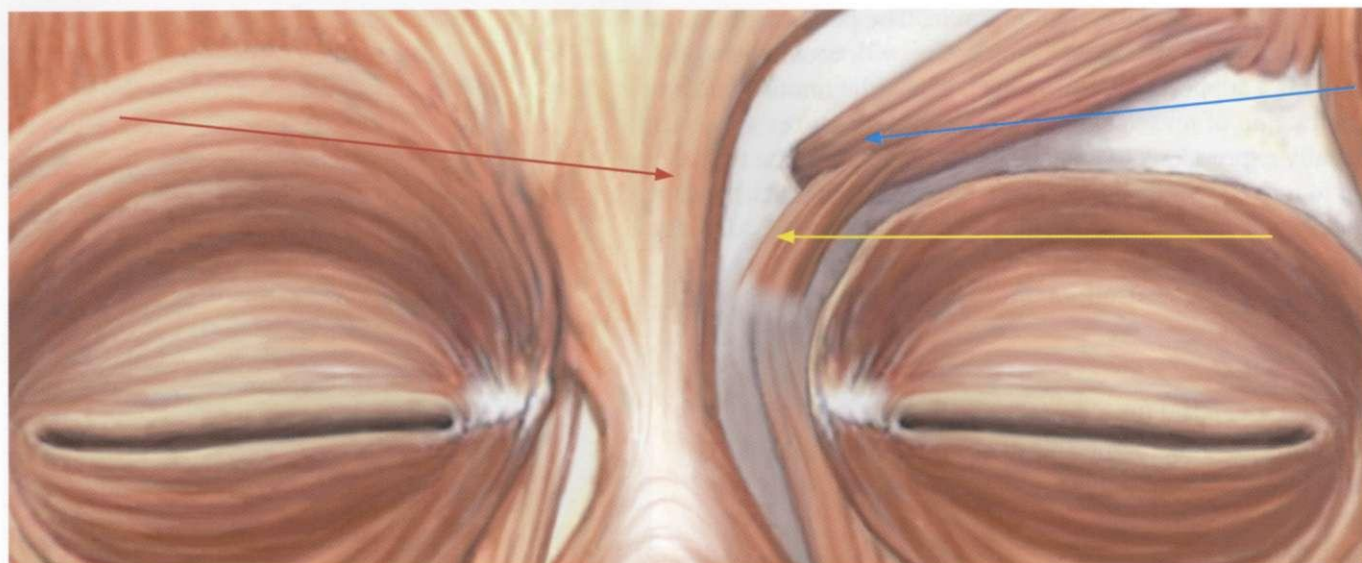


Fig. 2.6: the procerus muscle originates from the nasal bones and from the medial orbital area, it subsequently gets in the upper area of the frontal skin imbricating its fibres with those of the frontal muscle (red arrow). The corrugator muscles are equal and symmetrical. They get in at the level of the root of the nasal bones to move laterally above the eyebrow to allow the corrugation (blue arrow). In the lateral part of the insertion area they are quite superficial. Medially, they sometimes have a small vertical section representing the depressor supercilii muscle (yellow arrow).

Action of the procerus: it pulls down the frontal skin.

Action of the corrugator muscles: they cause the classical wrinkling of the eyebrows medially and inferiorly.

Action of the depressor supercilii muscles: they cause a depression of the medial tail of the eyebrow.

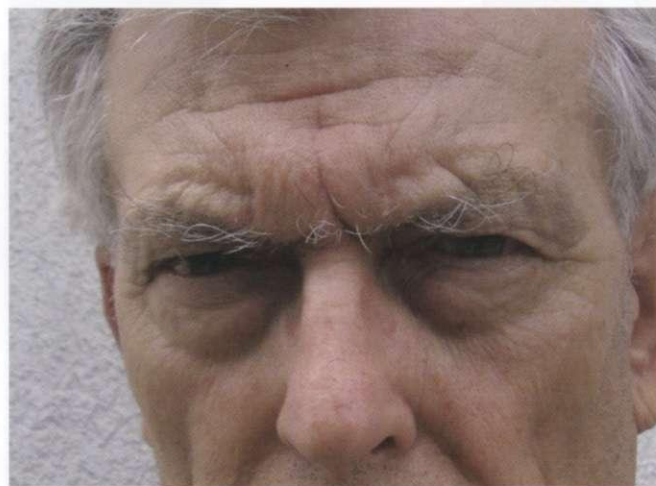


Fig. 2.7: 75 years old patient in whom we can see the action of the muscles of the nasal root, namely the procerus and the corrugator muscles: the procerus causes the classical horizontal lines of the nasal root. The corrugator muscles cause the vertical lines on the sides of the glabella.



Fig. 2.8: the contraction of the corrugator muscles changes the relative length of the nose as the glabella is shortened by contracting. In addition, the naso-frontal angle during contraction closes, while during the relaxation it tends to enlarge.

LEVATOR LABII ALEQUE NASI MUSCLE

This muscle is responsible for the so-called “Bunny lines”. It stems from the nasal root of the nasal bones in the lateral area, and from the frontal process of the maxillary bone. He goes up to the nostril and to the homolateral upper lip. For many authors it constitutes the quadrate muscle of upper lip together with the levator labii muscle and the zygomaticus minor muscle.



Fig. 2.9: the contraction of the levator labii aleque nasi, together with the elevation of the procerus muscle and the transverse nasal muscle, causes the classic “bunny lines” for the contraction of the nasal root. Along with these, there are also some transversal vertical wrinkles due to the contraction of the transverse nasal muscle.

Action: Vertical upwards elevation of the nostrils and upper lip at the same time. Typically, it is not possible to wrinkle the nasal skin without also simultaneously raising the lip.

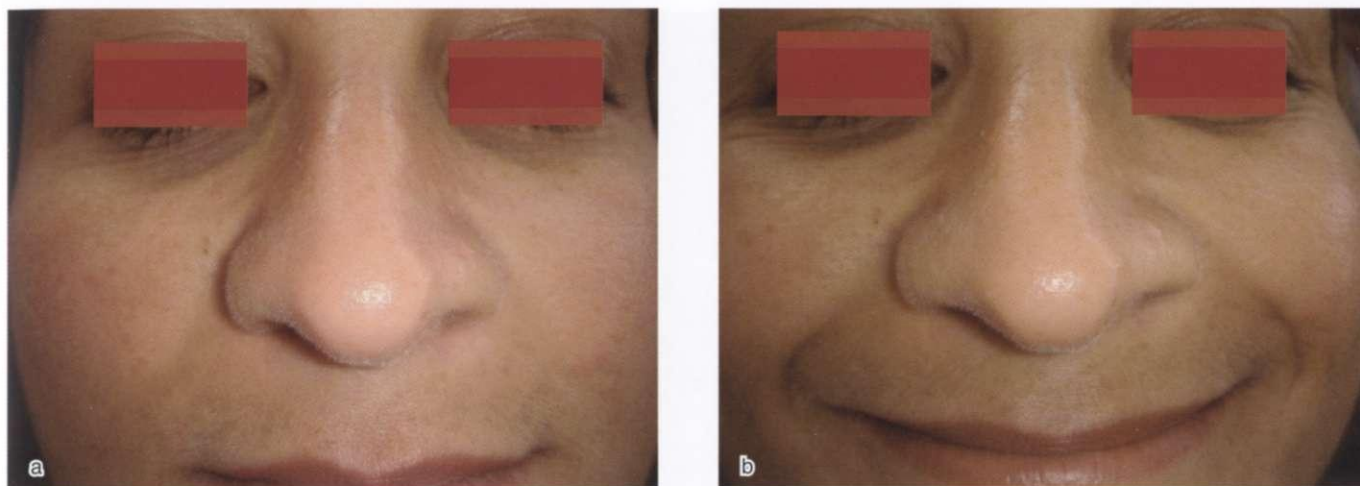


Fig. 2.12 a-b: another interesting example of the action of the dilator naris muscles during a smile, with an enlargement of the nasal base.

DEPRESSOR OF THE NASAL SEPTUM (DEPRESSOR SEPTI NASI)

It is responsible for a number of plunging tip cases. Its treatment with botulinum toxin is safe and very effective.

The muscle originates from the maxillary nasal spine and goes towards the nasal septum, the columella and the posterior skin of the nostrils.



Fig. 2.13: here we can see an anatomical preparation of the depressor septi nasi * (by Saban and Braccini F. "Rhino-plasties, les monographies du cca groupe" No. 32, Ed.2002).

Action: it pulls the nasal tip downwards while smiling or during the speech (h-i) and significantly reduces the nasolabial angle. The treatment with BTxA allows its release and the rotation of the tip.

NASAL MUSCLE

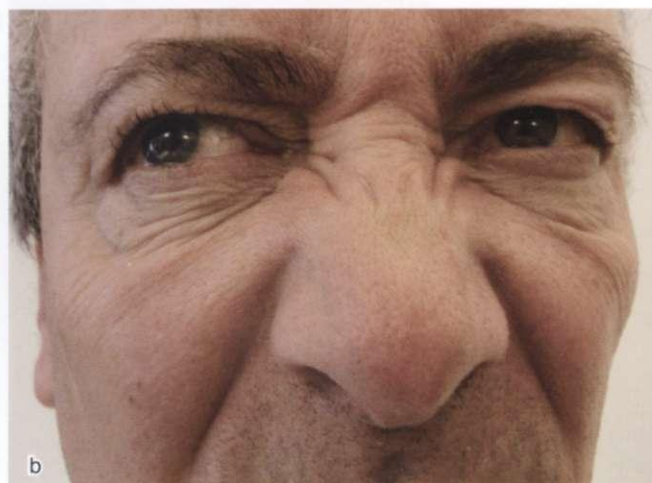
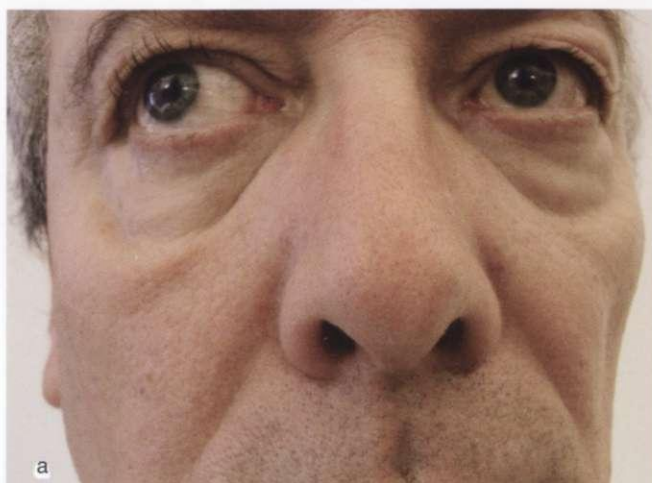


Fig. 2.10 a-b: the nasal muscle stems from the maxillary bone located above the canine. At the level of the nostril it is divided into an alar bundle (or *alar narium* or *alar nasalis*) and a transverse bundle (*transversus nasalis*) that runs up to the midline imbricating the fibres with the contralateral bundles.

Action: it contracts the nostril lowering the nasal wing while the transverse area wrinkles the nasal skin, acting together with the high lip and nasal wing (a-b).

DILATOR NARIS

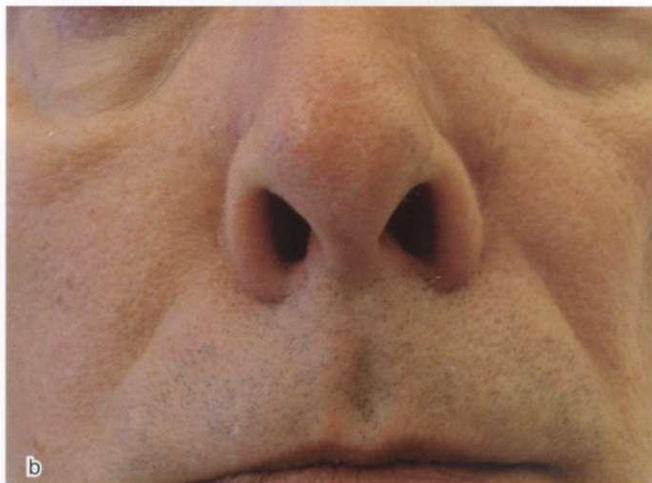
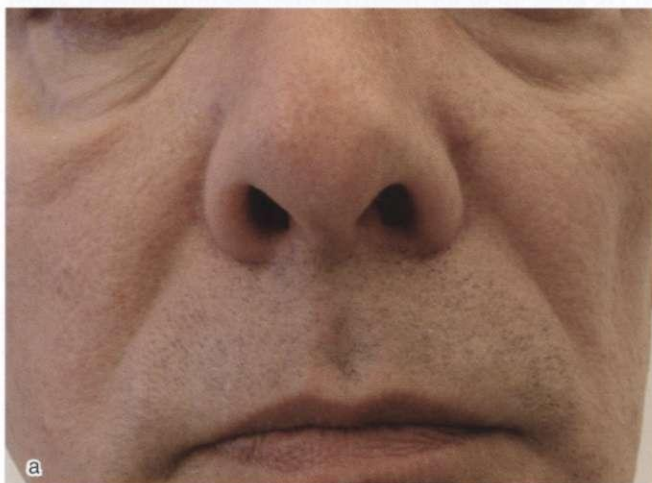


Fig. 2.11 a-b: the dilator naris muscle originates from the lateral margin of the pyriform aperture and reaches the lateral contour of the nostrils.

Action: it dilates the nostrils while sniffing in deep breaths (a-b).