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Aesthetic Plastic Surgery

Cervical Rhytidectomy

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Abstract. Based on anatomical and clinical considerations, a new classification of the six most common neck problems is presented. In general there are three types of necks—lean, fatty, and medium—which can involve three kinds of tissue—skin, muscle, and fat—that develop wrinkles, laxities, and adiposities. Different magnitudes and combinations of these problems are observed in these three kinds of patients. Medial plication of the platysma is emphasized as a natural way to deal with neck bands.

Key words: Neck tissue problems — Platysmal plication — Cervical rhytidectomy

There are several published papers on cervical rhytidectomy, dealing with the platysma and the fat. Most of them report details of the techniques and the good results that can be obtained with them [1–8]. Baker and Gordon [1] and Ellenbogen and Karlin [3] have described different types of necks and the treatment for each.

In general there are problems in lean or in fatty patients, and each can be divided into three groups. I also emphasize the importance of medial platysma plication as an effective way to treat neck bands.

It is my intention not to repeat technical details, but to determine an easy way to classify the different neck pathologies and to provide an available solution for each one.

Clinical Study of the Neck

The skin, platysma muscle, and fat are different kinds of tissues that present problems to plastic surgeons.

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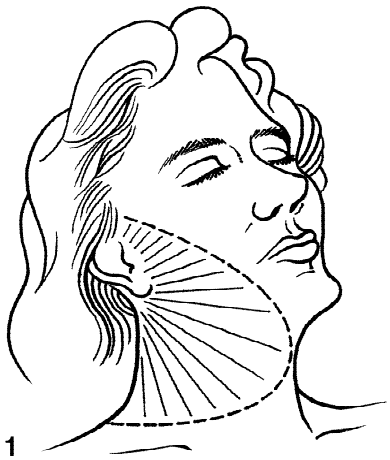
There are also three types of necks, which are clearly defined: the lean, the fatty, and the medium neck. Lean necks can have wrinkles in the skin and bands of the platysma. Fatty necks can have wrinkles in the skin, flaccidity of the platysma, and different kinds of adiposities, which can be situated medially, laterally and medially, or diffusely in all parts of the neck. Medium necks can present any of the previous problems but to a more moderate degree. See Figs. 1–2; 3–4; 5–6; 7–8; 9–10; and 11–12 for examples of neck types I–VI, respectively.

Surgical Treatment

In general, skin wrinkles are treated by an extended rhytidectomy (a wide dissection toward the middle line) or by a total rhytidectomy (extending from one side to the other), because traction can thus reach the medial part, where wrinkles are more evident. A small dissection does not deal properly with this central problem.

Incipient bands can be treated by lateral plications or dissection of the platysma, but in the case of severe bands, lateral traction elevates all the muscles against the force of gravity. After the operation this force will continue acting downwardly on the platysma, causing the muscles to drop. This could be the reason that bands recur. An alternative to this is central plication, as with corset plasty [3], in which the platysma is plicated downward, and the traction of the musculature is drawn to the central part of the neck.

For fatty tissues, liposuction or open resection of the fat is the surgical solution. In minor adiposities, liposuction is the easiest method of treatment. In moderate central or lateral adiposities, aspiration can be used, but in heavy and diffusely obese necks, open resection of the fat with scissors, as advocated by Davis and Cianflone [2], is the best way to obtain an even and regular skin surface. When liposuction is used first, irregularities should then be treated with open surgery to smooth them.



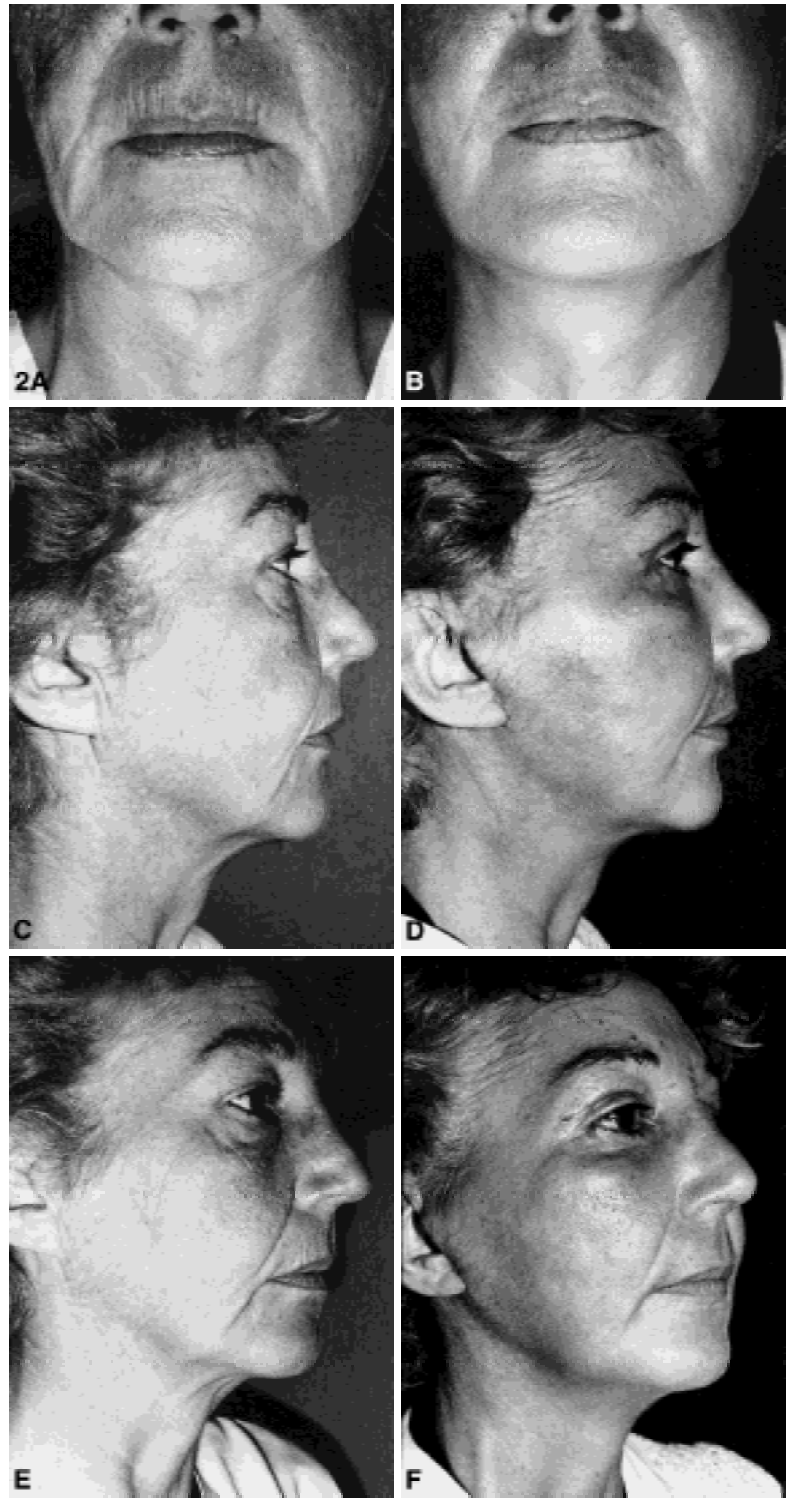
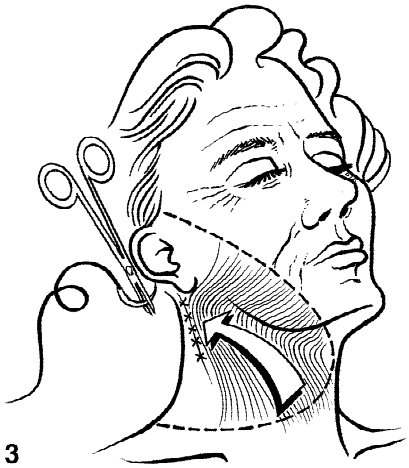


Fig. 1. Neck type I. Diagnosis: Thin neck with very few wrinkles in the anterior area. Surgery: Extended cervical rhytidectomy.
Fig. 2. Submental skin wrinkles (2A,C,E). Result after an extended rhytidoplasty, 2 years postoperative (2B,D,F).



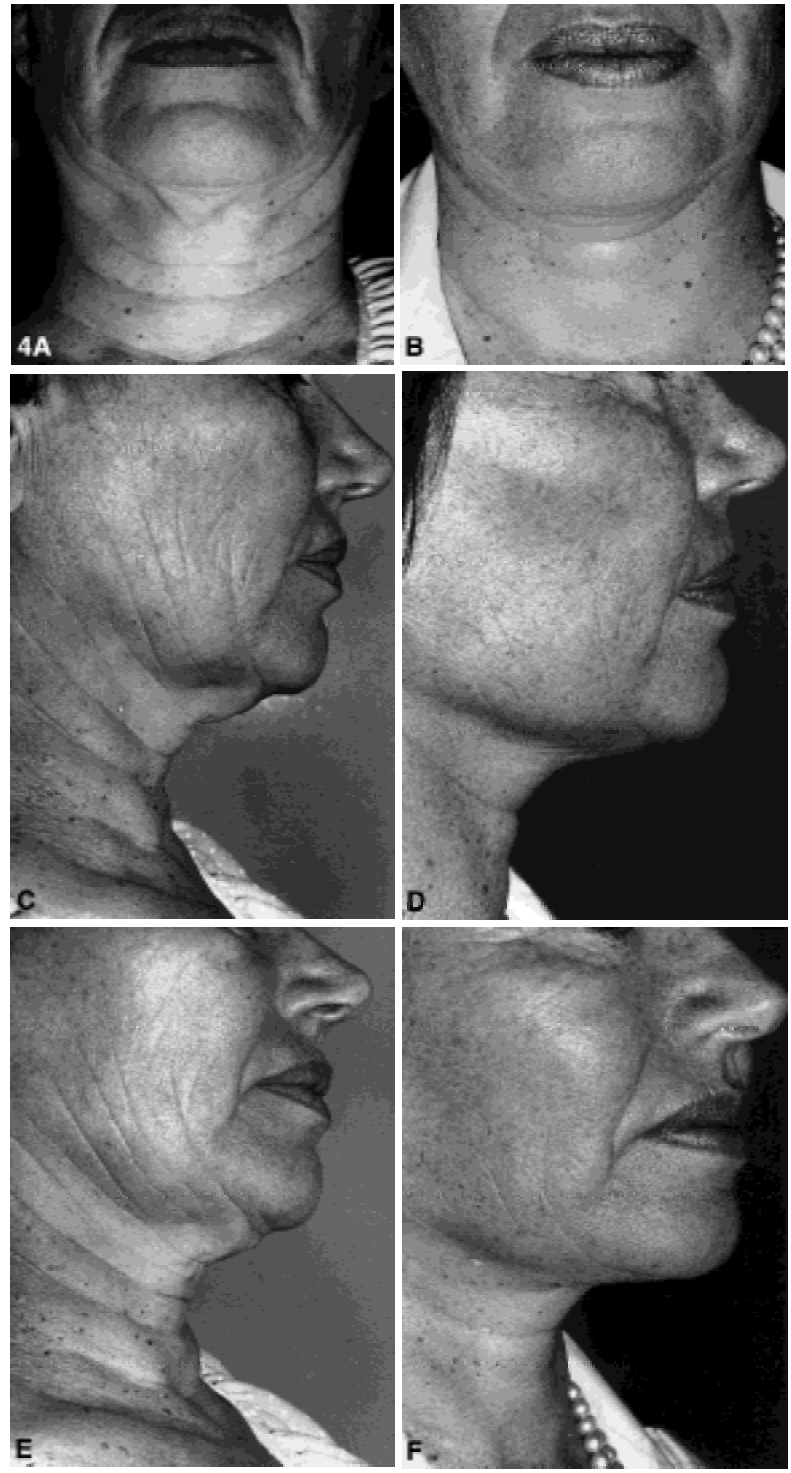
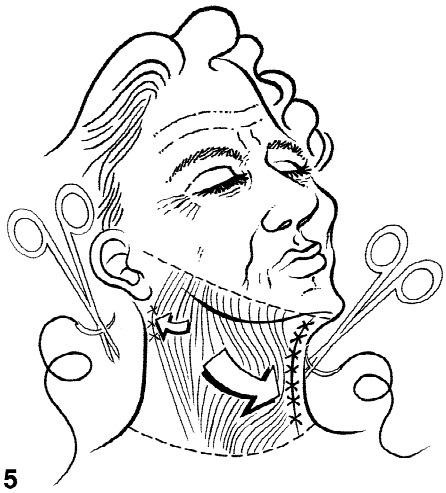


Fig. 3. Neck type II. Diagnosis: Thin neck with deep wrinkles in the anterior area and incipient bands. Surgery: Extended cervical rhytidectomy. Lateral plication of the platysma or dissection of the SMAS.
Fig. 4. Incipient bands (A,C,E) treated by an extended total rhytidectomy and lateral dissection of the SMAS. Postoperative appearance (B,D,F).



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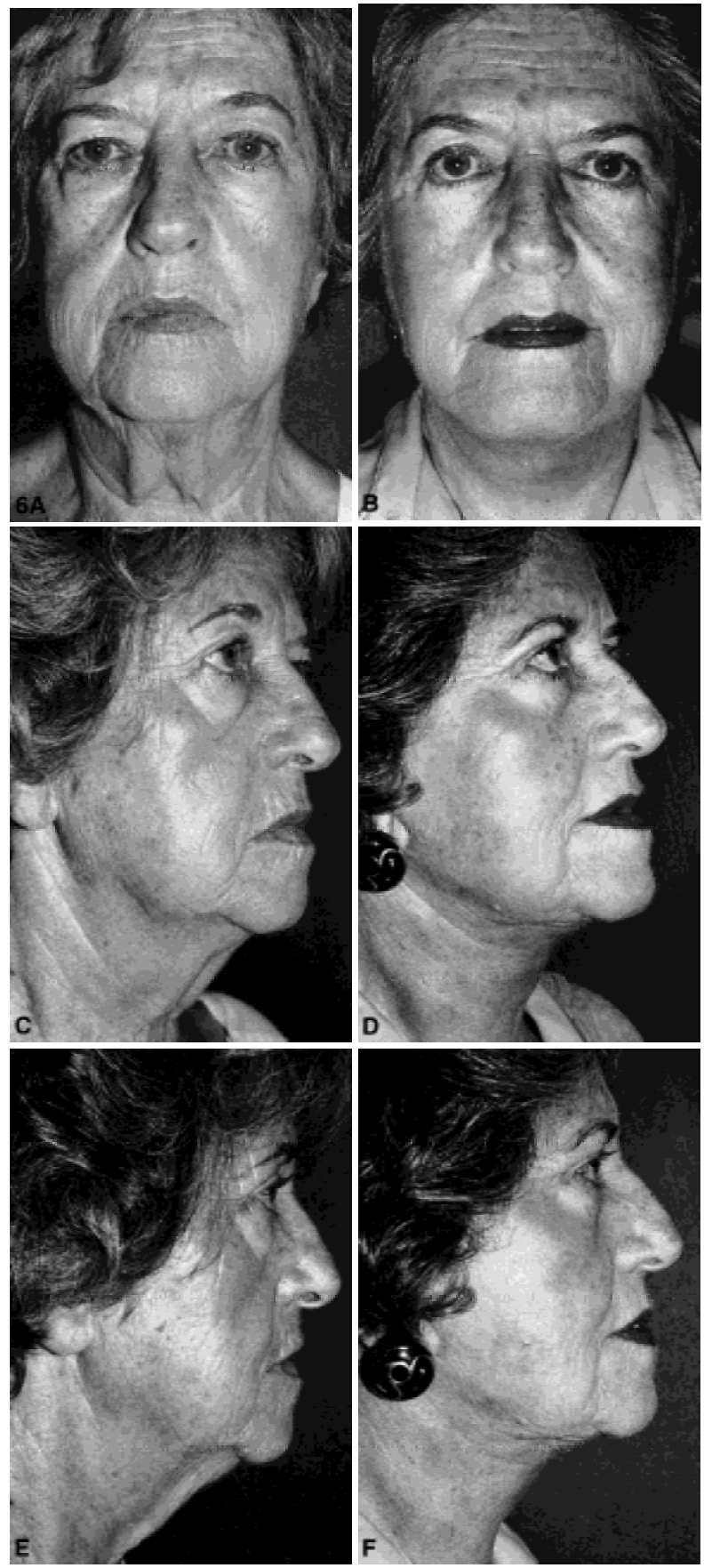

Fig. 5. Neck type III. Diagnosis: Thin neck with marked muscular bands. Surgery: Total cervical rhytidectomy. Anterior plication of the platysma. Complimentary lateral plication or dissection of the SMAS.
Fig. 6. Marked bands with flaccidity of the skin (A,C,E) treated by total rhytidectomy and corset plasty. Postoperative appearance 1 year later (B,D,F).

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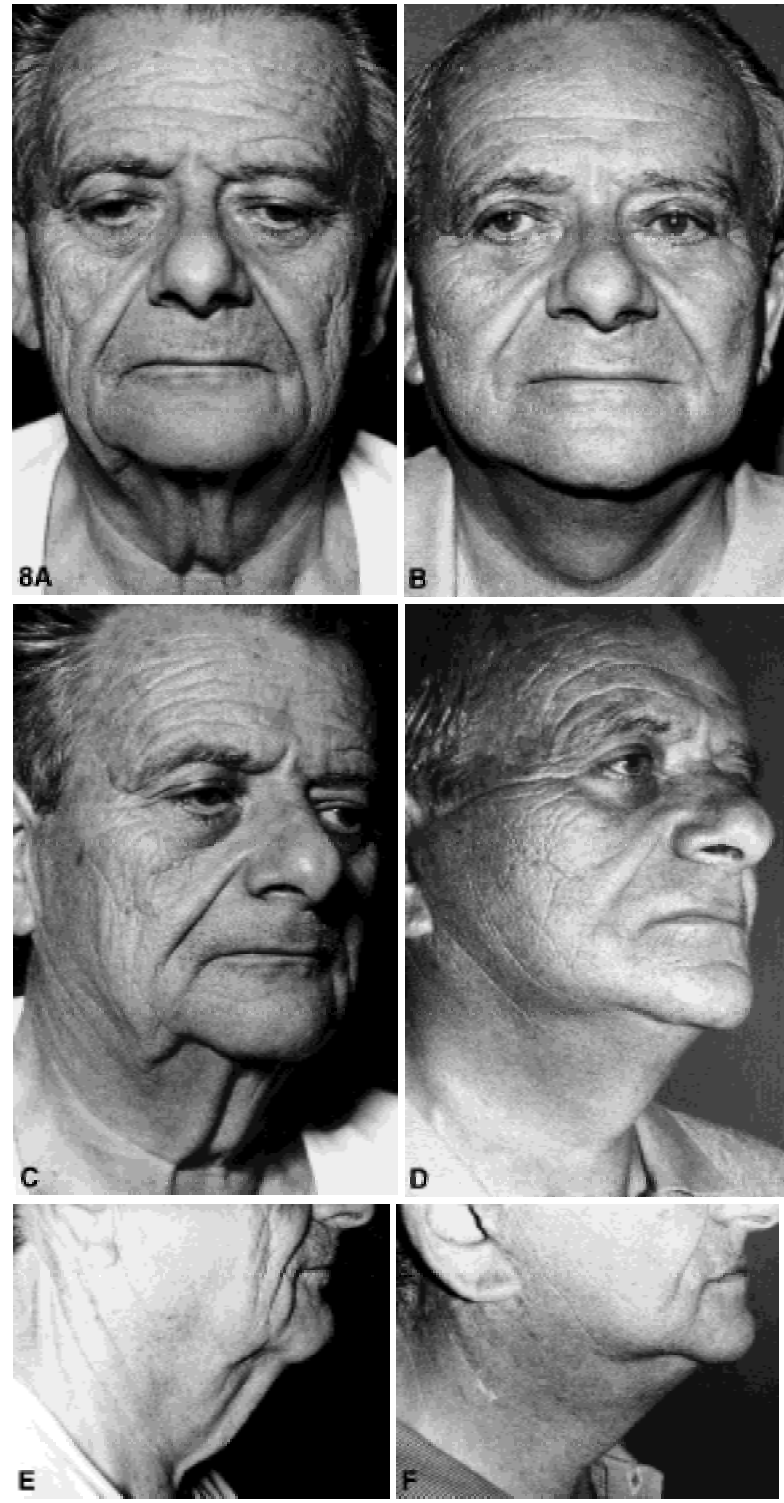
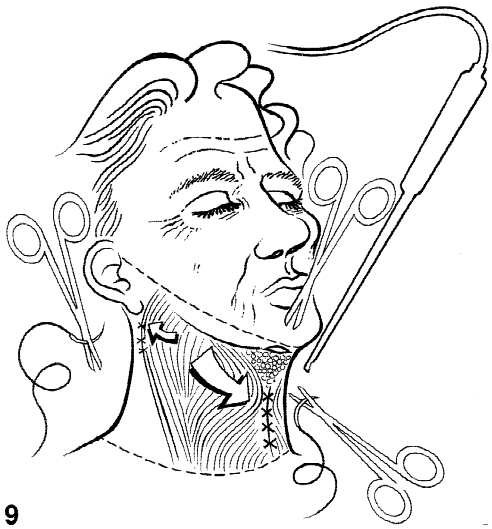


Fig. 7. Neck type IV. Diagnosis: Neck with skin wrinkles and a diffuse or mild submental fat pad. Surgery: Anterior liposuction. Total cervical rhytidectomy.
Fig. 8. Marked bands with marked flaccidity of the skin (A,C,E). Postoperative appearance 2 years later (B,D,F).



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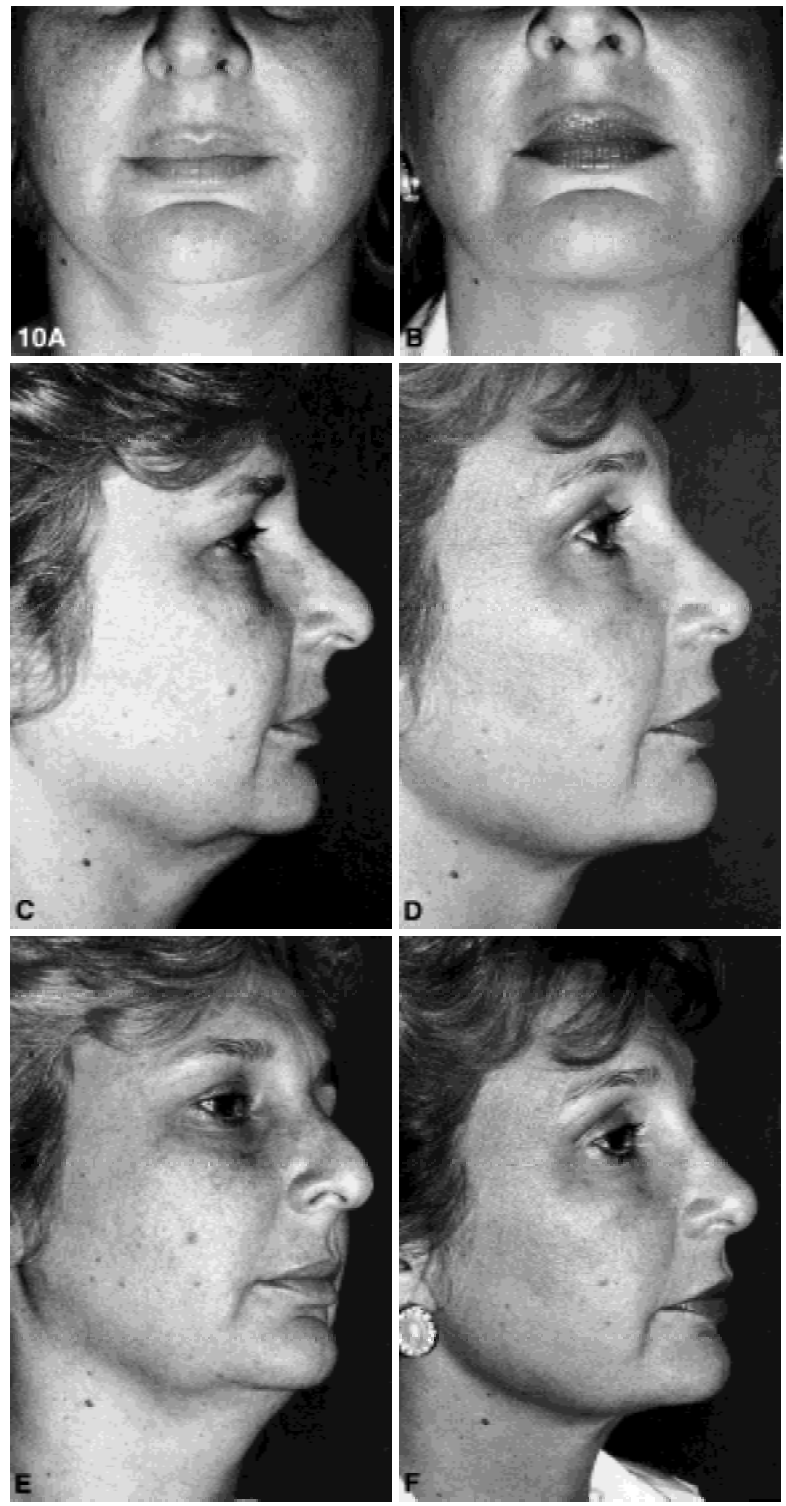
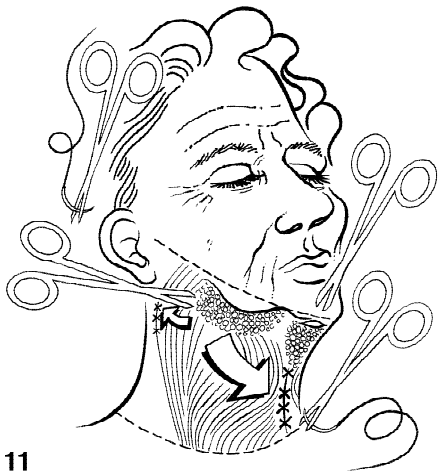


Fig. 9. Neck type V. Diagnosis: Neck with marked wrinkles with bands and a large anterior fat pad. Surgery: Total cervical rhytidectomy. Anterior open lipectomy. Anterior plication of the platysma. Complementary lateral plication of the platysma or dissection of the SMAS.
Fig. 10. Minor central adiposity of the neck (A,C,E). Liposuction and rhytidectomy gave this postoperative appearance 1 year later (B,D,F).



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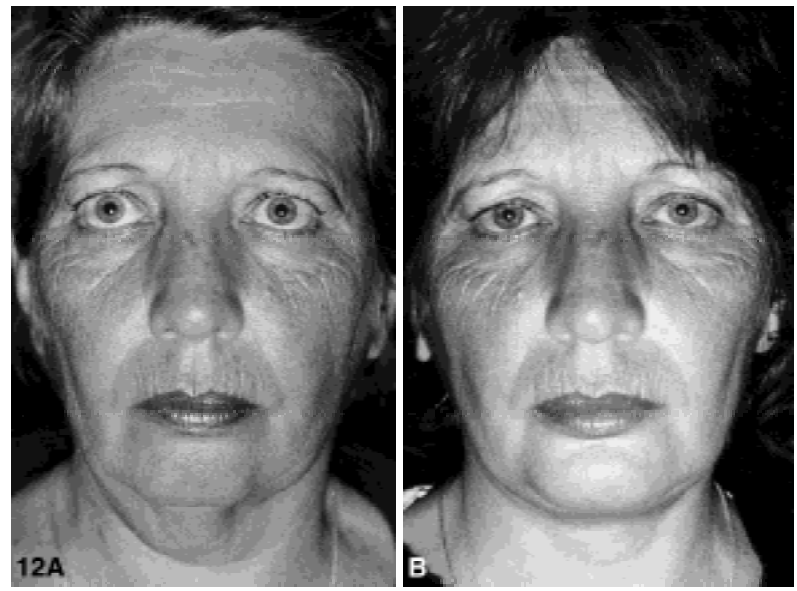

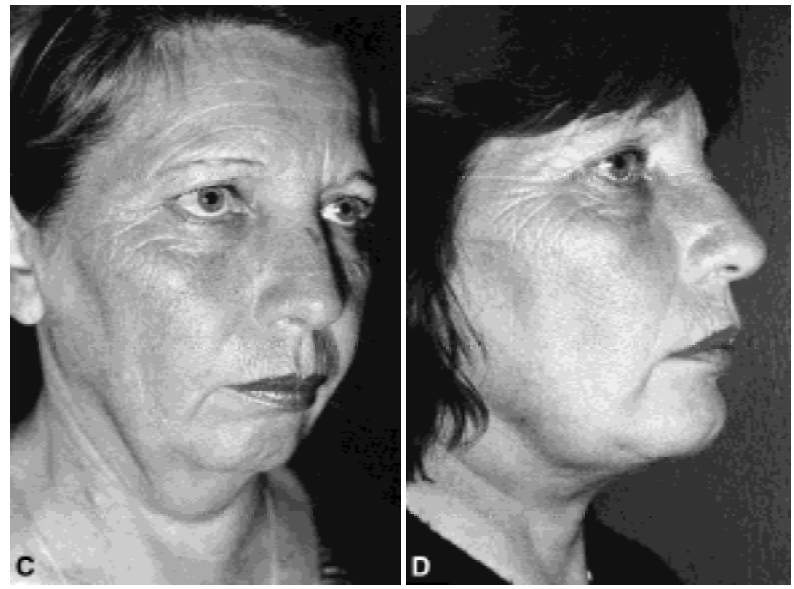

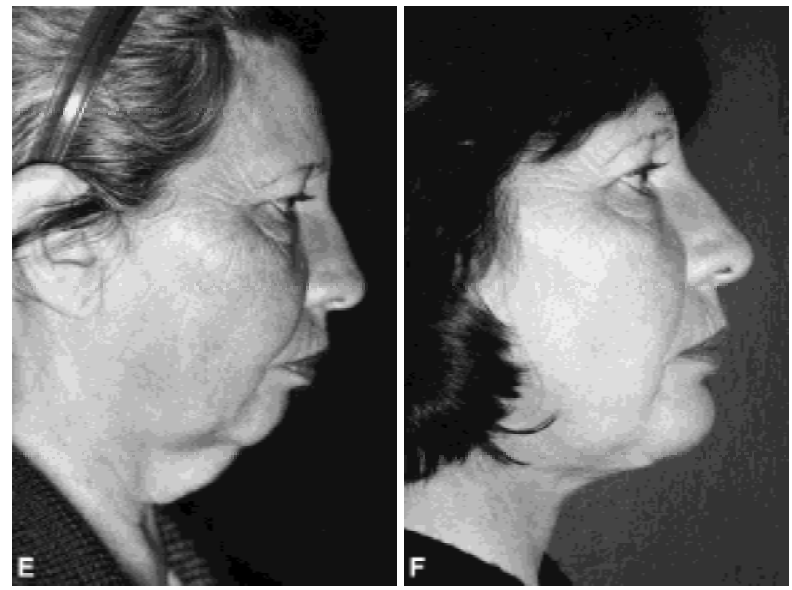

Fig. 11. Neck type VI. Diagnosis: Diffuse marked fat pad with wrinkles or bands. Surgery: Total cervical rhytidectomy. Open diffuse lipectomy. Anterior and lateral plication or dissection of the SMAS.

Fig. 12. Neck with marked muscle bands and central adiposity (A,C,E) gave this postoperative result (B,D,F) following total neck rhytidectomy, anterior lipectomy, and corset plasty.

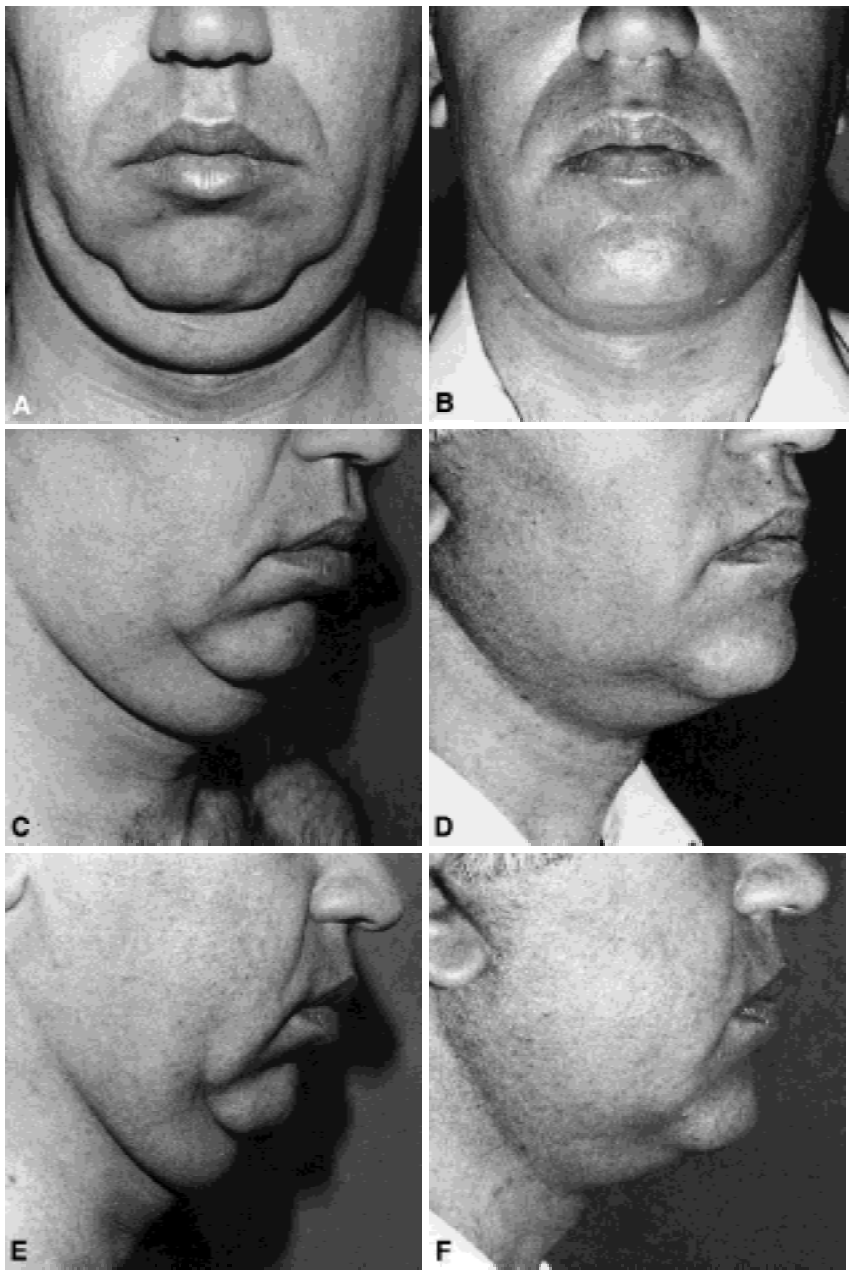

Fig. 13. Diffuse but not marked adiposity of the neck (A,C,E) treated by liposuction, corset plasty, and mentoplasty giving this postoperative appearance (B,D,F) 1 year later.

Obese-neck patients should be advised beforehand of the possibility of a second operation as part of the surgical program, because in these severe cases, one cannot always be sure of obtaining good results with just one operation [1,7] (Table 1).

Discussion

There are different kinds of tissues involved in cervical facial aesthetic surgery [1,5,6], and each one is the cause of certain types of problems. For each problem, there are specific surgical solutions.

I have used Baker and Gordon's [1] classification for some years, with good results. They pointed out that there are infinite variations of these four types. In a paper concerning the youthfulness of the neck, Ellenbogen and Karlin [3] described seven different cases; but for all of the cases they used the same surgical methods, with minor variations. They also considered other anatomical structures of the neck such as the chin configuration, the hyoid position, and the cervicomental angle.

Vistnes and Souther [6] determined in cadavers that the undecussated medial border of the platysma stood out as two bands extending from the mandible to the clavicle, leaving the skin overlying the platysma muscle

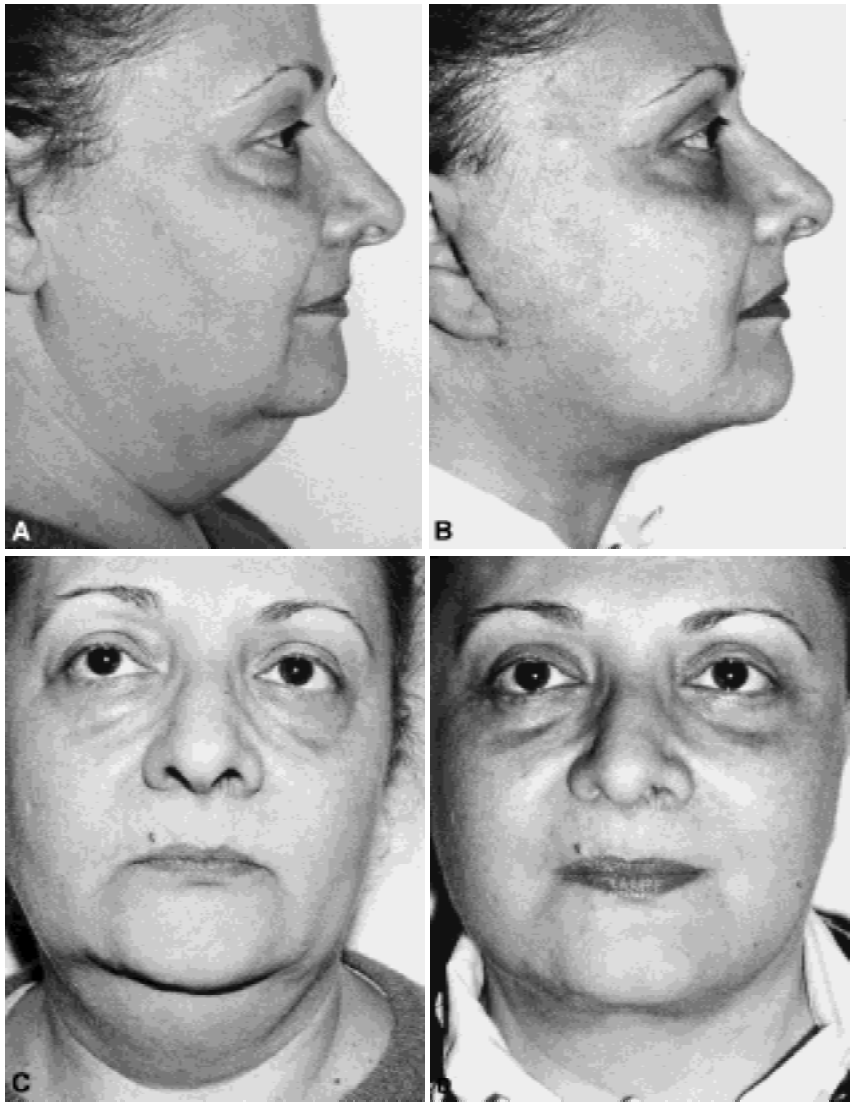

Fig. 14. Diffuse fatty neck (A,C) treated by extended lateral and central lipectomy and corset plasty with the postoperative appearance (B,D).

Table 1. Statistics

Neck type	Operated patients
I	13
II	20
III	16
IV	9
V	15
VI	7
Total	80

bound to it by fibrous septa. During surgery in these cases, pulling the skin in a lateral direction (such as in an ordinary facelift) pulls the free borders farther apart, restoring a temporarily pleasing neck contour supported by skin alone.

For these reasons the corset plasty of Feldman [4] is the best way to strengthen the muscles, not to weaken them, smoothing the thyroid cartilage by covering it.

Summary

I have classified the most common neck aesthetic problems into six categories. There are different pathologies in thin and fat necks, and each can be divided into three divisions according to their degree. A different surgical treatment is indicated for each of them.

The value of this classification is that each patient can be placed into one of these groups and thus we will know what to do. We can also evaluate the results of our surgery in future controls.

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