Golden Peel Plus in Cellulite and Gluteal-lift

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Treatment of cellulite and sagging of the gluteal folds constitutes a challenge for dermatologists. In this article, we report the results of 5 sessions of Golden Peel Plus (Jessner solution plus resorcin 53% gel) to treat both conditions in 15 women. Assessment was made through photographs, circumferential measurements, ultrasonographic evaluation, and measurement of the height of the subgluteal fold. The *t* test was used for statistical analysis ($P<.01$).

Cellulite is synonymous with edematous panniculopathy, fibrosclerosis, and genetic lipodystrophy. It is commonly seen in females but is very rarely seen in males. The areas most often affected are the outer thighs and gluteal region.[1] Cellulite is commonly described as giving the skin an appearance similar to that of an orange peel.

Diagnosis of cellulite is easy, but treatment is difficult and often disappointing. A number of local and nonsurgical cellulite treatments have been used, including caffeine, theophylline, aminophylline, lactic acid, tretinoin, botanic extract mixtures, neuropeptide Y, and peptide YY, as well as bioactive alpha and Y, either alone or in combination, with variable results.[2,3] Cellulite does not respond easily to body weight loss.[2,3] Massage and skin kneading, known as endermology, and superficial liposuction have also been used, with uneven results.[3-7] Subcision has also been performed with positive results[8,9]; however, this method is somewhat cumbersome when used over large areas of cellulite.

Sagging of the gluteal region as a result of aging, familial body form, muscular dystrophy, and other causes is usually corrected via surgery, which results in a long scar. Treatments that can be performed to improve sagging and lift gluteal folds include laser resurfacing, intense pulsed light, and microdermabrasion, in addition to combinations including topical tretinoin.[3,7]

Although women have long been concerned about the appearance of their thighs, surgical treatment was not advised until 1960, when Farina et al[4] suggested the use of an L-shaped incision. Using this approach, they successfully resected fat and skin overlying the greater trochanter. In addition, contouring of the buttocks was also performed to correct unaesthetic buttocks sagging, sometimes referred to as "sad buttocks." However, because the operation leaves scars that are visible when swimsuits or underwear are worn, the L-shaped approach has never become popular. Pitanguy[5] suggested the use of a semicircular excision starting at the groin, going along the inner medial thigh, and then extending onto the buttock toward the iliac crest. No undermining beyond the area to be excised was advised. However, there are several major drawbacks associated with this surgical approach, including prolonged healing; descent, widening, and uneven appearance of the scars; supratrochanteric depressions; use of drains; hematomas; seromas; wound dehiscence; infection; careful monitoring of fluids and electrolytes; and blood loss requiring transfusions.[4-6]

The aim of this article is to describe the positive results we have obtained using Golden Peel Plus in the treatment of cellulite and in the lifting of gluteal folds.

MATERIALS AND METHODS

Cellulite

Fifteen randomly selected Hispanic females who ranged in age from 15 to 48 years (average, 31 years), in weight from 49 to 86.7 kg (average, 63.6 kg), and in height from

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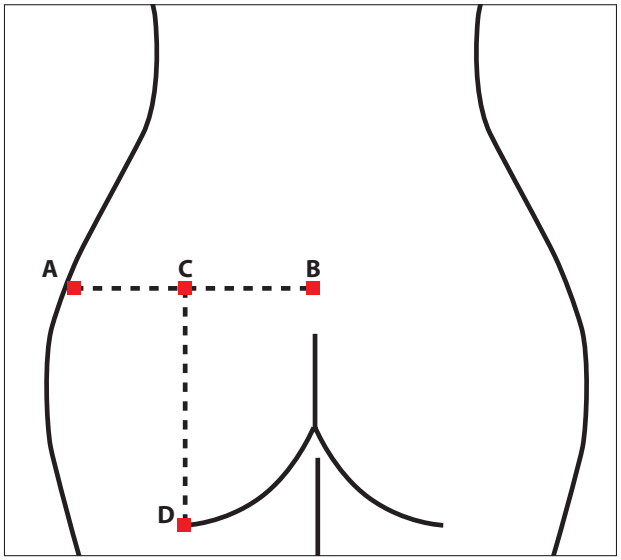

Figure 1. Measurements of subgluteal height were made before and after patients were treated with Golden Peel Plus. The measurements were taken from line CD, in the exact middle of the subgluteal fold. Illustration courtesy of José Enrique Hernández-Pérez, MD.

1.41 to 1.69 m (average, 1.56 m) were included in the study. Excluded from the study were women who were pregnant or lactating; women who had allergies, systemic infections, or renal impairment; or women who had received treatment for weight loss in the previous 3 months or prior treatments with anticellulite creams. Eighty percent of the patients were of Fitzpatrick skin type III or IV. Informed consent was signed prior to the study by all patients. The severity of cellulite was classified according to the 4-point scale developed by Amad et al[10] (1=not seen, not felt; 2=not seen, but felt; 3=seen and felt; 4=macronodules).

There were no patients with grade 1 severity, 3 patients with grade 2 severity, 8 patients with grade 3 severity, and 4 patients with grade 4 severity. The areas included in the study were the outer thighs and the gluteal region. Subjective evaluation of cellulite was performed 6 months after treatment by 3 observers: 1 physician, 1 nurse (always the same), and the patient herself, with a range of 0 to +++, with 0 indicating no changes, and +++ indicating excellent improvement. Photographs were taken before the study, upon completion of the study, and 3 months following completion of the study. Evaluation of cellulite was also carried out using circumferential thigh measurements (in centimeters) before and after treatment, and diagnostic ultrasound (in millimeters) pretreatment and posttreatment. Circumferential measurements were made with a metric band from the root of the thighs at the inguinal fold.

Gluteal-lift

The same patients who participated in the cellulite arm of the study were included in the gluteal-lift arm.

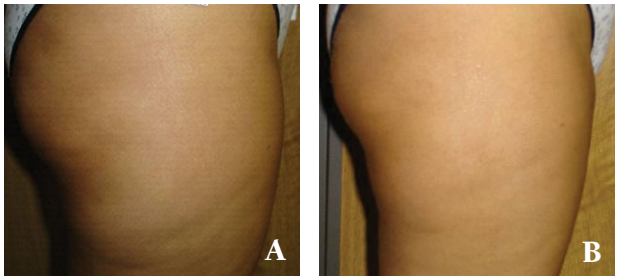

Figure 2. Patient before (A) and after (B) treatment with Golden Peel Plus for thigh cellulite.

Measurements of the height of the subgluteal fold were taken as follows: a line was drawn horizontally from the anterior superior iliac spine toward the exact posterior midline of the body (line AB). Then, a vertical line was drawn from the middle of the previous line, touching the subgluteal fold perpendicularly (line CD). Line CD was considered the measurement of subgluteal height (Figure 1).

Measurements and photographs were taken before the study, upon completion of the study, and 3 months following completion of the study. Subjective assessments were made by the 3 observers, who employed the same criteria used in the cellulite arm of the study. Five peelings, once every 2 weeks, were carried out. After the skin was cleansed with acetone and the area was scrubbed with polyethylenglycol granules, Jessner solution was applied for a minimum of 3 minutes and up to a maximum of 7 minutes in the cellulite areas and until whitening was observed in the gluteal region. Afterward, Golden Peel (resorcinol 53% gel) was applied to the same areas for a minimum of 7 minutes and a maximum of 10 minutes, forming Golden Peel Plus. The number of passes made was governed by the tolerance of the skin. Statistical analysis was performed using the *t* test for small paired samples. Adverse effects were carefully noted.

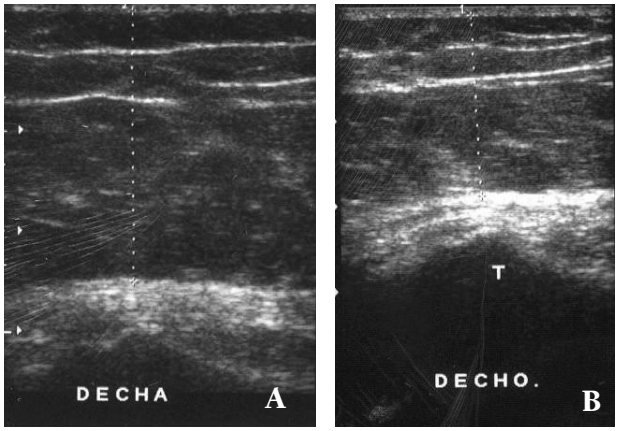

Figure 3. Ultrasonographic measurements before (A) and after (B) treatment with Golden Peel Plus for thigh cellulite. Note the decreased thickness of adipose panniculus following treatment.

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RESULTS

Thigh Cellulite

On average, the circumference of the thigh decreased on the right side from 60.4 cm to 57.9 cm and on the left side from 60.4 cm to 57.5 cm (Figure 2). Ultrasonographic measurements improved, on average, from 27.9 mm to 22.6 mm on the right side and from 28.4 mm to 23.8 mm on the left side (Figure 3; Table 1). The 3 observers categorized 80% of the results in the thighs as excellent and 20% as very good.

Gluteal-lift

The height of the subgluteal fold decreased on the right side from 21.4 cm to 18.6 cm and on the left side from 21.0 cm to 18.7 cm (Figure 4; Table 2). The 3 observers categorized 87% of the results in the gluteal region as excellent and 13% as very good.

Adverse effects included mild, self-limited postinflammatory pigmentation in 2 (13%) of 15 cases. A statistically significant difference was noted in the improvement achieved in the thighs and gluteal region ($P<.01$). Eczematous contact dermatitis was not noted in any case.

DISCUSSION

Etiologically, cellulite can be related to genetic factors and an abundance of female hormones, or it can be a manifestation of secondary sexual characteristics. Neurovegetative, circulatory, and other factors have been postulated as etiologic factors.[1-3,7,10,11] Aggravating factors leading to cellulite are stress, a sedentary lifestyle, fried foods, and orthopedic and venolymphatic disturbances.[1,2] In areas of cellulite, there is a predominance of alpha-2 insulin receptors (antilipolytics and stimulants of lipogenesis).[3,10-12] The areas most commonly affected are the outer thighs and gluteal region; however, the inner thighs, inner knees, lower abdomen below the umbilicus, and upper arms are other areas that can be affected.[1-3,10] Histologically, fat is deposited in the dermis in the form of loculi separated by fibrous septa, giving the characteristic nodular appearance of cellulite.[1-3,7]

TABLE 1

Ultrasonographic Measurements of Thigh Cellulite for Women Being Treated With Golden Peel Plus

Right Thigh	Left Thigh	Right Thigh	Left Thigh
Pretreatment, mm		**Posttreatment, mm**	
25	26	18	22
23	26	20	24
16	15	15	14
40	35	31	27
16	16	13	13
40	45	32	41
28	24	22	20
27	27	22	22
37	35	32	31
23	24	16	16
45	49	40	44
17	16	15	15
27	33	22	27
22	22	11	12
33	33	31	30
Mean		**Mean**	
27.9	28.4	22.6	23.8

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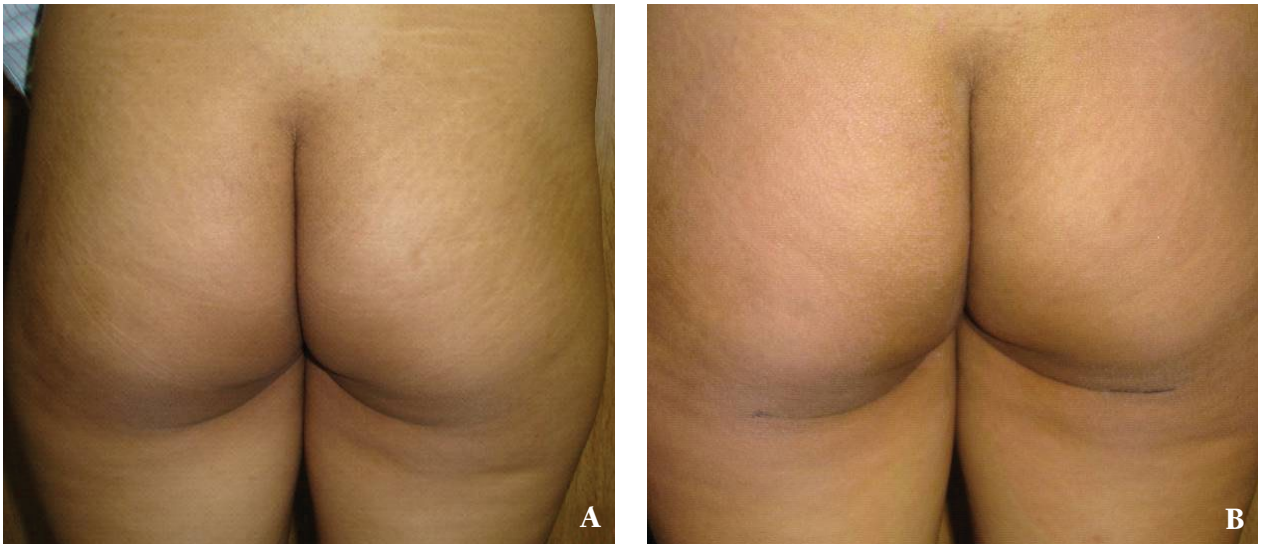

Figure 4. Patient before (A) and after (B) treatment with Golden Peel Plus for gluteal-lift. The height of the subgluteal fold is raised and there is a general improvement in the appearance of the buttocks after treatment.

Cellulite can also form, especially in the outer thighs, as a result of very superficial, incorrectly performed liposuction. With cannula tunnels leading up to the dermis, postoperative compression can push deeper fat upward into the dermis, resulting in cellulite.[1,3,11] Cellulite can also form in women who have undergone fat transfer if the injected fat is deposited in loculi very superficially in the upper dermis.[13] There are important differences in the organization of fat in the hips, thighs, breasts, and abdomen in men and in women. These differences explain herniation of adipocyte lobules by hypertrophy and hyperplasia within structural connective tissue compartments in women, whereas in men adipose tissue in hypertrophic distribution is either caudal or cephalic and does not result in cellulite.[7,11] In the trochanteric areas (the thighs, hips, buttocks, and femoral areas of women), there is a strong predominance of antilipolytic alpha-2 receptors, in addition to a number of insulin receptors. These receptors are antilipolytic and favor lipogenesis, which increases the deposition of adipose tissue in these zones and results in cellulite.[1,3,12]

The skin-tightening effect of Golden Peel has been well known to dermatologists for several years.[14,15] Recently, we have also demonstrated improvement in breast flaccidity and breast-lift using Golden Peel Plus.[16] The gluteal-lift effect of Golden Peel Plus is desirable in a number of ways. It leads to improvement of sagging skin, resulting in a more youthful appearance of the buttocks and enhanced self-esteem. Moreover, the more invasive surgical option of gluteal-fold lifting is avoided, along with its associated long, unaesthetic scar. As the complications associated with Golden Peel Plus are minimal or nonexistent, we believe that this treatment constitutes a very interesting, minimally invasive method for lifting the gluteal folds.

Golden Peel Plus is a medium- to deep-peel solution that reaches the papillary and upper reticular dermis.[15] The composition of Golden Peel is 53% resorcin, 5% cetyl alcohol, 5% glyceryl monostearate, and 37% deionized water.[14] Golden Peel Plus is safe, inexpensive, and effective. The application procedure is simple and does not involve anesthesia or invasive surgery. Good results are obtained using Golden Peel Plus to treat photodamage to the face, upper limbs, and V-line of the neck, as well as to improve striae distensae and breast flaccidity.[14-17] Golden Peel Plus leads to increased epidermal and dermal thickness and decreased dermal elastosis. Two to 3 days after application, peeling starts in the form of dark brown scales. The number of sessions can be increased for enhanced improvement.

Although not dramatic, the improvement resulting from the use of Golden Peel Plus has been proven clinically, ultrasonographically, and statistically. Improvement is due to the reorientation of collagen fibers and breakage of fat loculi, leading to a tightening effect. Golden Peel Plus also results in increased dermal vascularity, with a concomitant increase in metabolic activity. This may also lead to clearing of excess superficial fat.

Phenol peels may be cardiotoxic. Trichloroacetic acid peels in increased concentrations can produce chemical burns and scars. In contrast, Golden Peel Plus, although made up of resorcin, a phenol derivative, is free of toxic effects.[14,15]

CONCLUSION

The use of Golden Peel Plus for treating cellulite and for lifting the gluteal fold is highly recommended. Its efficacy has been proven clinically, ultrasonographically, and statistically, with low incidences of adverse effects. Furthermore, it is inexpensive, with no downtime. With

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TABLE 2
Height of Subgluteal Fold for Women Being Treated With Golden Peel Plus

Right Subgluteal Fold	Left Subgluteal Fold	Right Subgluteal Fold	Left Subgluteal Fold
Pretreatment, cm		**Posttreatment, cm**	
23	22.5	18	17
21	21	17.5	17
19	20	18	19
20	19	18	17.5
20	19	18	18
22.5	20	15.5	15
21	22	20	21
22	20.5	18	19
23	24	21	21.5
22	22	20	18.5
26	26	22.5	22
21	20	19	19
22.5	23	18	20
21	19	16	18
17.5	17	20	18
Mean		**Mean**	
21.4	21.0	18.6	18.7

Golden Peel Plus, it is possible to perform an increased number of peelings, adding to patient satisfaction. Also, treatment may be combined with other medical modalities for convenient at-home use.

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