Edematous fibrosclerotic panniculopathy or cellulite is commonly known as a dermatological alteration; however, there are different theories that define the concept of cellulite. One of the theories refers to the occurrence of edema in the connective tissue, which causes a large accumulation of water and generates cellulite. It may also be related to the compression of venous and lymphatic systems, which alters microcirculation and results in cellulite, mainly due to obesity. Other theory is that it may be associated with connective tissue projection, in women because it is perpendicular and in men because it is oblique, which explains the higher incidence of cellulite in females. The appearance of cellulite can also be influenced by collagen loss in the affected region, stress, sedentarism, obesity, heredity, hormonal contraceptives, age, sex, pregnancy, nutrition, among others. Cellulite can affect different regions of the body, palms, soles and scalp are the only unaffected parts. The regions with the highest incidence of cellulite are the buttocks and the posterior thigh. This incidence is associated with the compression of adipose tissue, as well as with body posture, thus, increasing cellulite in these regions. According to authors, adipose and skin tissues are affected in different ways, causing structural changes in the skin, microcirculation and adipocytes. Cellulite may present four varying degrees, according to authors Rao et al. and Rossi and Verganini. In grade one, it presents only histopathological changes. In grade two, cellulite is noticeable when the muscle is contracted or the skin is palpated. There is also decrease in temperature, loss of skin elasticity, and circulatory alteration. When cellulite presents nodules, is visible without tissue compression, and there are even changes in skin sensitivity, it is characterized as grade three. For diagnosis and treatment, a specialist doctor is recommended. Subcision is a subcutaneous surgery technique with no incision. A special needle or scalpel is used to section the fibrous septae, thus, releasing the tension that the septae causes on the skin and stimulating the formation of collagen. Even though this procedure requires postoperative care, such as wearing compression clothing, cessation of physical activities, and local massages for a short time, it is performed in an outpatient setting, being minimally invasive, effective, and safe. For the treatment of post-traumatic irregularities, such as injections, traumas, falls, and even of patients who have had breast implant removed and adhesions after inflammatory processes in the affected regions, polymethyl methacrylate (PMMA) filling and subcision are used. PMMA, which is commonly used in plastic surgery, is a definitive synthetic microsphere polymer. Its biocompatibility and non-toxicity have been tested since 1930. Formation of granulomas may occur due to its use; however, it does not depend on the technique used.

This paper aims at reporting the use of both subcision and PMMA filling treatments to treat and correct cellulite irregularities in grades three and four in the gluteal region.

CASE REPORT

This paper reports the cases of four female patients (Fig. 1 to 4) who searched cellulite treatment at the clinic. Their cellulite was classified as grades three and four and the proposed treatment was subcision followed by filling with polymethyl methacrylate. Initially, the patients were evaluated and an assessment form was filled out with complete anamnesis and previous treatments. There was also the filling of informed consent and a photographic record. The filling and subcision procedures were performed on an outpatient basis. All patients remained awake and actively participated throughout the procedure, giving their opinion on the volume and location to be infiltrated with the liquid implant.

TREATMENT

The patients were positioned in a standing position in front of a mirror for preoperative markings. In prone position, local anesthesia was...
performed using 2% lidocaine with vasoconstrictor, respecting the ideal volume of lidocaine by body weight and diluted 1:1 in saline solution. After the marking and the application of anesthesia, approximately three to ten ml of 10% PMMA were infiltrated, depending on the need of each patient. The volume was well distributed in each of the regions to be treated with movements similar to the ones performed in a liposuction. This motion does not promote material accumulation, but a uniform distribution that stimulates collagen production and promotes a local filling in order to fill the empty space created with the subcision. The subcisions were performed with a needle specially created for this purpose, such instrument and technique are registered as GoldIncision®.

FIGURE 1 - Images before and after treatment using subcision (GoldIncision®) and PMMA filling.

DISCUSSION
Cellulite in advanced grades has an “orange peel” appearance (Figure 3). In affected regions, there is a hardening of the fat layer, thus, affecting the fat tissue. Cellulite provides the condition for fibrosis in adipose tissue to occur, which is associated with poor circulation and metabolic insufficiency (Figures 2 and 3). In adipose tissues with no cellulite there are empty spaces where fat moves freely[3]. In case of obesity, there are no limitations to where cellulite may appear[4]. Regarding the appearance of cellulite being more frequent in females, there are no studies explaining this fact[5]. New techniques are being developed with the aim of improving results. Thus, results were demonstrated with the use of complementary techniques, both non-invasive and invasive.

CONCLUSION
Significant improvement was seen after the use of both the subcision and the polymethyl methacrylate filling techniques (GoldIncision®). In these cases, the PMMA filling provided a more satisfactory result by completely correcting skin irregularities. Thus, results were demonstrated with the use of complementary techniques, both non-invasive and invasive.

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REFERENCES