Recurrent vulvar fissures: retrospective review of a series of cases treated with Cellular Matrix/A-CP-HA Kit (combination of autologous platelet-rich plasma and non-cross-linked hyaluronic acid)

Introduction

Vulvar fissures are linear erosions that characteristically occur in various areas of the vulva, most frequently in the posterior fourchette, mainly during vaginal intercourse, or in the form of small fissures that occur mainly in the folds of the skin, particularly the interlabial sulcus, in fine lines on the perineum, or radially within the perianal skin folds. These may or may not be associated with sexual activity. (1)

The patient with vulvar fissures should be evaluated to rule out infections and skin diseases. Due to the wide range of etiologies, common activities that expose women to physical and chemical irritation should be included. The differential diagnosis in any individual patient will depend on age, presenting characteristics and symptoms. (2,3)

Vulvar disorders are more common after menopause, often due to hypoestrogenism or immunological factors that impair vulvartropism . In any case, the consequences of vulvar pain in terms of health, sexuality and quality of life are usually undervalued among patients who suffer from these disorders. (4) Patients who consult on several occasions without a causal diagnosis are treated with medications such as antifungals and topical corticosteroids or more aggressively, corticosteroids produce atrophy with chronic use and worsening of the fissures. (2, 3)

The mechanism of which is often unknown, fissures within the interlabial grooves and other folds can occur due to infections, such as Candida and herpes simplex, or due to inflammatory dermatoses such as atopic dermatitis or lichen. sclerotic. (2, 3)

Vulvar fissures can occur for varied reasons and are frequently seen in clinical practice in menopausal patients with SGUM. In those patients who do not respond to the usual treatments, or have little response, repeated vulvar fissures can occur, which They trigger long-term dyspareunia and vulvodynia due to fibrosis and scarring of the introitus region. (5)The main therapeutic measure in these cases is to treat the cause that triggers the vulvar fissure, and rule out concomitant pathologies, but despite this, standard treatments are usually insufficient to achieve healing and improvement of these vulvar fissures. (1)

The use of regenerative therapies has been shown to improve the symptoms associated with vulvo -vaginal atrophy, and in patients with symptoms refractory to treatment, it presents a unique advantage; a series of cases are presented where a combination of autologous plasma rich in platelets and non-cross-linked hyaluronic acid (Cellular Matrix/A-CP-HA Kit) in patients with repeated vulvar fissures refractory to standard treatments. (1,4)

Methods

A retrospective study was conducted, which included all patients treated with Cellular Matrix/A-CP-HA Kit in our center with a diagnosis of recurrent vulvar fissure, from January 2022 to January 2023.

Results

A total of 12 patients with recurrent vulvar fissure were included in this study, mean age of 53.5 years, of which 9 were in menopause, 4 of them had an early menopause (<45 years), and only 2 presented Vulvar lichen sclerosus as concomitant diagnosis, mean BMI 23.79.

Two patients with aged of 34- and 24-year-old were diagnosticated with vulvar atrophy, the first as consequence of suppression of oral contraception and the second post chronic treatment with antifungal cream.

All patients receive one or two dose of treatment with Cellular Matrix/A-CP-HA Kit, with no complications reported, the were also indicated treatment for underlying conditions, with corticosteroid cream or topical hormonal cream; some patients resort to oral hormonal treatment as a complement to systemic symptoms. Follow up until a year was performant, with recurrent of fissure in 4 cases after a year, well manage with topical treatment, without pain in intercourse.

Conclusions

Chronic vulvar itching increases the likelihood of erosions and fissures, while women scratch, rub, and apply various compounds and medications to reduce this symptom. These actions can increase the risk of infection and further damage. Once a fissure occurs, the skin folds are more fragile, and therapy for any underlying cause may need to continue long enough for both the cause to be controlled and for the skin to heal properly and regain its strength. . If both infection and dermatosis are present, they should be treated concomitantly. (2, 3) PRP injections act improving tissue regeneration through the secretion of several growth factors, which stimulate the proliferation of human adult adipose-derived stem cells and fibroblasts, and the production of type I collagen and matrix metalloproteinase 1 and 2. These phenomena would lead to tissue proliferation and differentiation, neoangiogenesis and synthesis of new extracellular matrix. (6)

The treatment of recurrent fissures must focus on their cause; any additional treatment must be complementary to an initial and continuous line of treatment, to prevent these complications from continuing to appear. The use of Cellular Matrix is effective and safe, achieving healing of the fissures in all cases. It is important to remember that it is a product that requires maintenance, like pharmacological or hormonal treatments. Patients must be informed that without the use continued the pathology can recur, in our experience minimum 6 months, maximum 1 year between cell phone sessions matrix , and in each session it is recommended to apply two doses separated by 1 month, to achieve the best results and their maintenance over time. They are not curative treatments; the triggering cause of the ulcer must be kept under control. In specific cases, a session of two doses separated by a month could be sufficient, but in patients

with genitourinary syndrome of menopause , and with emphasis on patients with menopause early, continuous follow-up should be maintained, and the sessions offered to continue.

References

1.- González-Isaza, P., Sánchez-Prieto, M. & Sánchez-Borrego, R. Chronic vulvar fissure: approach with cross-linked hyaluronic acid. Int Urogynecol J 34 , 1495–1499 (2023). https://doi.org/10.1007/s00192-022-05401-4

2.- Edwards L. Vulvar fissures: causes and therapy. Dermatol Ther. 2004;17(1):111–6. https://doi.org/10.1111/j.1396-0296.2004.04011.x .

3.- Bohl TG. Fissures, Herpes Simplex Virus, and Drug Reactions: Important Erosive Vulvar Disorders. Obstet Gynecol Clin North Am. 2017;44(3):421–43. https://doi.org/10.1016/j.ogc.2017.05.005 .

4.- Comino R, Coronado PJ, Cararach M, Nieto A, Martínez- Escoriza JC, Salamanca A, Torres-García LM, Vidart JA, Mendoza N, Torné A, Sánchez-Borrego R. Spanish consensus on vulvar disorders in postmenopausal women . Maturitas . 2015;80(2):226–33. https://doi.org/10.1016/j.maturitas.2014.11.012 .

5.- Kennedy, Colleen M. MD, MS; Dewdney, Summer MD; Galask, Rudolph P. MD, MS. Vulvar Granuloma Fissuratum: A Description of Fissuring of the Posterior Fourchette and the Repair. Obstetrics & Gynecology 105(5 Part 1):p 1018-1023, May 2005. | DOI: 10.1097/01.AOG.0000158863.70819.53

6.- Moccia, F., Pentangelo, P., Ceccaroni, A. et al. Injection Treatments for Vulvovaginal Atrophy of Menopause: A Systematic Review. Aesth Plast Surg 47, 2788–2799 (2023). https://doi.org/10.1007/s00266-023-03550-5