

Efficient Treatment of Early Stria with Triticum Vulgare

Stria is a disfigured lesion caused by excessive stretching of the skin. Although it does not cause a medical problem, it has cosmetic effects on the patients' quality of life. We investigated the efficiency of Triticum Vulgare in clinically active, early phase stria associated with pregnancy.

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Triticum Vulgare was applied to 12 pregnant patients and petrolatum was applied to 10 pregnant patients for 4 months. The patients were evaluated in the second and fourth weeks initially and then in monthly controls. A lesion, chosen as the target, was photographed before treatment and in each control throughout treatment. This study was approved by the Firat University, Faculty of Medicine, Ethics Committee (no:192).

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There was a marked decrease in severity score of stria two months later in Triticum Vulgare group. Topical Triticum Vulgare brings about a marked improvement in active and early striae.

Anahtar Kelimeler: Stria, Triticum Vulgare.

Erken Dönem Stria Tedavisinde Triticum Vulgarenin etkinliği

Stria derinin aşırı derecede gerilmesiyle oluşan kötü görünümlü lezyonlardır. Sağlık açısından herhangi bir soruna neden olmamakla birlikte, kozmetik etkisiyle hastaların yaşam kalitesini kötü yönde etkilemektedir. Biz bu çalışmada gebeliğe bağlı oluşan erken dönem strialar üzerinde topikal uygulanan Triticum Vulgare tedavisinin etkinliğini araştırdık.

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12 gebe hastaya Triticum Vulgare ve 10 gebe hastaya da vazelin 4 ay süreyle uygulandı. Hastalar başlangıçta ikinci ve dördüncü haftalarda daha sonra aylık kontrollerde değerlendirildi. Tedavi öncesinde ve her kontrolde bir lezyon hedef olarak seçildi ve fotoğraflandı. Bu çalışma Firat Üniversitesi Tıp Fakültesi Etik Kurulu tarafından onaylandı (No: 192). Sonuç: Triticum Vulgare kullanan grupta iki ay sonunda strianın şiddetinde bariz azalma saptandı. Topikal uygulanan Triticum Vulgare erken dönem strialarda bariz düzelmeye neden oldu.

Key Words: Stria, Triticum Vulgare.

Introduction

Stria is a common skin lesion, which does not pose a medical problem, but may be cosmetically annoying (1). It can develop when the skin is subjected to extreme and progressive stretching, like in pregnancy, puberty, rapid weight gain, increase in adrenal cortical activity, excessive use of topical and systemic steroids (2,3). Prevalence of stria is 90% in pregnant women, 70% in female adolescents and 40% in male adolescents and it is most frequently seen on the breasts and abdomen in pregnancy (3,4). There are very few studies about the treatment of stria. These studies investigated the efficiency of topical tretinoin in stria treatment, but the results are contradictory (5,6). Triticum Vulgare is a scattering and re-epithelizing agent. It gives the skin elasticity by increasing the secretion of glycosaminoglycan and decarboxylase, which are collagen fibers that have an important part in scar recovery. We planned this study considering that with these characteristics, Triticum Vulgare can be used in stria treatment.

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Materials And Methods

The study included 22 healthy, pregnant women (Table 1). 12 patients used Triticum Vulgare and 10 patients used petrolatum. Mean age of the patients was 26.3 (range 21-35). All had erythematous, pinkish violaceous lesions due to their first pregnancy. When lesion locations are considered, 45% of lesions were on the abdomen, 35% on the abdomen and breast, 20% on the breast and 10% on the thigh. Triticum Vulgare was applied to 12 patients twice daily and petrolatum was applied to 10 patients twice daily for this control group. The patients did not use topical or systemic anti-inflammatory drugs and sunscreen creams throughout the study. One researcher determined visually the clinical severity of stria as mild, moderate and severe in each control. Maximum width and length were measured; depth and color were recorded. In each control, stria was compared with its pre-treatment condition and the changes were photographed. Triticum Vulgare was not applied on the day before clinical evaluation.

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Patients were assessed at presentation, in the 2nd and 4th weeks and in the monthly controls. No recovery was accepted as 0; recovery, 1; marked recovery, 2; and complete recovery 3. This study was approved by the Firat University, Faculty of Medicine, Ethics Committee (no:192).

Results

Of the 22 patients included, 20 patients completed the study. One patient was excluded, as she did not come to the controls in control group. Another patient left

the study by her will after two months in Triticum Vulgare group.

As a result of the 4-month follow-up we found recovery in 2 patients (18.1%) treated with Triticum Vulgare, marked recovery in 4 patients (36.3%) and complete recovery in 5 patients (45.4%) (figure 1,2). In control group, we found recovery in 3 patients (33.3%) treated with petrolatum, marked recovery in 4 patients (44.4%) and complete recovery in 2 patients (22.2%). The earliest recovery was observed in the 6th week. No side effects were recorded.

Table 1.1-11. TRITICUM VULGARE group, 12-20: control group

Number	Age	Etiology	Location
1	35	Pregnancy	abdomen and breast
2	27	Pregnancy	abdomen
3	29	Pregnancy	abdomen
4	21	Pregnancy	abdomen and breast
5	21	Pregnancy	thigh
6	27	Pregnancy	breast
7	29	Pregnancy	abdomen
8	30	Pregnancy	abdomen
9	21	Pregnancy	abdomen
10	30	Pregnancy	abdomen
11	21	Pregnancy	thigh
12	22	Pregnancy	breast
13	23	Pregnancy	abdomen and breast
14	27	Pregnancy	abdomen and breast
15	29	Pregnancy	abdomen
16	21	Pregnancy	abdomen
17	24	Pregnancy	breast
18	26	Pregnancy	abdomen and breast
19	27	Pregnancy	abdomen and breast
20	22	Pregnancy	abdomen



Figure 1. One patient's abdominal skin photograph before treatment with Triticum Vulgare.



Figure 2. Abdominal skin photograph of the same patient after four months treatment with Triticum Vulgare.

Discussion

Stria is a fairly common symptom (7). It was first reported in 1889 in the medical literature histologically and defined by Unna in 1894 and by Gans and Steigleder in 1925 (2,75). Developmental stages of stria can be clinically observed. Initially it has a pinkish violaceous color on skin level and is pruritic (1,3,5). Violaceous stria gets wider and longer by time, its color fades and turns white, and the lesion depresses (2,3). It may have a mildly wrinkly surface. A mature stria characteristically has an irregular shape, its long axes are parallel to skin stretching lines and it has an atrophic appearance; therefore, it is believed that striae are caused by damage in dermal collagen and elastic fibers (3,5).

It generally develops in healthy adult women due to puberty or pregnancy. It is seen on the abdomen and breast in 90% of pregnant women (4,8). It can also be observed in case of mechanical stretching of the skin as in rapid weight gain (8,9). Stria is formed by destruction of collagen and elastin in the dermis (4). Burg claimed in 1976 that stria was a form of scar and was reversible (7). Irrespective of its cause, recovery process of stria does not resemble that of a scar, after stria is formed (4).

Stria is a cosmetic problem. An efficient treatment for stria could not be developed yet and number of studies on this topic is fairly limited. Kang S et. al. used 0.1% topical tretinoin in the treatment of early stage stria and showed an apparent recovery (1). In a similar study with a larger series, they once again found that 0.1% tretinoin brought about clinical recovery in stria (6). Elson ML.

treated 20 patients with different stages of stria and established a marked recovery in 15 out of 16 patients who completed the study (2). As opposed to these 3 studies, Pribanish S. et. al. applied 0.025% tretinoin to 32 patients with abdominal stria and stated that it was not effective (4). In the previous studies, striae were treated at any stage and it was noted that tretinoin was effective in both early and late striae. However, we and Elson claimed that stria could recede only when it was pinkish violaceous in color and was not depressed, in other words in the early period only (1). Triticum Vulgare is a scattering and re-epithelizing agent. It stimulates leukocyte migration and invasion in afflicted skin. It activates fibroblast synthesis and fibroblast movement towards the area of lesion. It increases the activation of inositol phospholipid hydrolysis and ornithine decarboxylase, known as the growth factor. It also gives the skin elasticity by increasing the synthesis of glycosaminoglycan and decarboxylase, which are collagen fibers that have an important part in scar recovery (10).

There is no study about the treatment of stria with Triticum Vulgare. In the present study we applied Triticum Vulgare to 11 patients who had stria associated with pregnancy. We found complete recovery in 45.4%, marked recovery in 36.3% and recovery in 18.1% of patients treated with Triticum Vulgare. We used Triticum Vulgare in early period of stria, which poses a serious cosmetic problem, and found it highly effective. In consideration of the fact that it can also be used during pregnancy, we think Triticum Vulgare can be highly beneficial. We think that studies with larger series are needed on this topic.

Kaynaklar

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