



Effect of Curcuma Domestica, Centella asiatica, Cera alba, Glycerin, Lemon Essence to Reduce Stretch Marks

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Abstract: *Stretch marks or streaks occur in almost 90% of women. Stretch marks sometimes appear itchy in the scratch and around it. Not a few who complain about stretch marks. Although it cannot be completely eliminated, the condition can be minimized with early skin care Stretch marks. This study is a quantitative study with a quasi-experimental research design with a pretest-posttest with control group design, which was conducted on elementary school patients. In this research design, the grouping of the members of the experimental group and the control group is done by purposive sampling. Then pretest was carried out on both groups and treatment was given to the experimental group, then after some time a posttest was carried out on both groups. This research was conducted at the Faculty of Health, Kusuma Husada University, Surakarta, in young women with SD. Data collection method using observation sheets to measure the number of SD lines. The sample used was 14 people in the control group and 14 people in the intervention group. From the results of the study, it was found that the administration of Curcuma domestica ointment could reduce the number of Striae Distance (SD) lines in adolescent girls.*

Keywords: *stretch marks; lemon essence; curcuma domestica*

I. Introduction

Stretch marks or streaks occur in almost 90% of women. Stretch marks sometimes appear itchy in the scratch and around it. Not a few who complain about stretch marks. Although it cannot be completely eliminated, the condition can be minimized with early skin care Stretch marks.

This is a normal part of puberty going through teenagers. During puberty, a teenager's body generally grows very quickly. This condition can make teens start to have scar tissue, especially around the breasts, thighs, hips, and buttocks. Stretch marks are more common in teenage girls. However, it is possible that teenage boys also have stretch marks. Some teenagers who are obese and are busy building their bodies by free-lifting can also be prone to having stretch marks.

When severe, stretch marks can cause significant itching and discomfort and psychological distress to the patient. There are few data on the mechanism behind the development of stretch marks, but histologically they are similar to striae distance (SD), with reorganization and reduction of elastic tissue in the skin (Chang, 2004).

The cause of Striae Distance is still not widely known, but it is clearly related to changes in the skin's tensile strength structure and elasticity during a period of maximum growth and development. Skin stretching technique is related to hormonal (Shusters, 1979). Herbal therapy is one of the complementary and alternative medicine methods, it is preferred because it has fewer complications and is less expensive than invasive procedures such as laser therapy and cosmetic surgery. Preventing the development of Striae is the same as healing and camouflaging wounds and scars (Mohamed, 2009).

Turmeric (*Curcuma Domestica*) is a type of finding that contains curcuminoids, which consist of curcumin compounds and their derivatives which include Desmethoxycurcumin and Bisdsmethoxcurcumin. The part of turmeric that is mainly used is the rhizome, which is widely used for traditional medicinal ingredients, textile dyes, cooking spices, spices, and cosmetic ingredients. The benefits of turmeric rhizome as a traditional medicine include treating itching, tingling, swollen gums, wounds, shortness of breath, stomach pain, ulcers, scabies, gout, jaundice, improving digestion, anti-diarrhea, antidote, and so on.

Turmeric (*Curcuma Domestica*) is a traditional plant that is widely known and has long been used by the community. Curcumin is reported to have multicellular activity because it can counteract and reduce the risk of various diseases, including antiproliferation and antioxidant activity by inhibiting 97.3% of cellular lipid peroxidation activity. In the study it was reported that curcumin compounds are effective in models of acute and chronic inflammation. The potency of curcumin was almost equivalent to that of phenylbutazone in the carrageenin-induced edema test, but only half of the activity of phenylbutazone in the chronic trial.

Turmeric (*Curcuma Domestica*) is a tropical spice plant that has been widely used in herbal medicine in Asia for hundreds of years. According to Wikipedia, turmeric contains medicinal compounds called curcuminoids, consisting of curcumin and desmethoxycumin. Turmeric is quite high in Vitamin C content, therefore this plant is often used to treat various diseases. In addition, turmeric contains antiseptic ingredients that are suitable for preventing inflammation in wounds, can treat itching, and brighten skin color.

II. Research Methods

This study is a quantitative study with a quasi-experimental research design with a pretest-posttest with control group design, which was conducted on elementary school patients. In this research design, the grouping of the members of the experimental group and the control group is done by purposive sampling. Then pretest was carried out on both groups and treatment was given to the experimental group, then after some time a posttest was carried out on both groups.

This research was conducted at the Faculty of Health, Kusuma Husada University, Surakarta, in young women with SD. Data collection method using observation sheets to measure the number of SD lines. The sample used was 14 people in the control group and 14 people in the intervention group.

III. Discussion

3.1 Frequency Distribution of Characteristics of Cadre Respondents by Age

The results of research that has been carried out on 24 young women can be seen in the table below:

Table 1. Frequency Distribution of Respondents Characteristics

No	Age	Frequency	%
1	12-17 year	10	35.7
2	18-21 years old	18	64.3
	Total	28	100

From table 1 above, it can be seen that the majority of respondents are in the age range of 18-21 years with a total of 18 respondents (64.3%).

3.2 Frequency Distribution of Number of SD Lines

Based on the table above, it is known that the number of SD lines with 5-10 lines in the pretest of the intervention group is 5 respondents (35.71%) and in the control group is 6 respondents (42.86%). The number of SD lines with a number >10 in the pretest of the intervention group were 9 respondents (64.29%) and in the control group were 8 respondents (57.14%).

The number of SD lines with 5-10 lines in the posttest of the intervention group is 10 respondents (71.43%) and in the control group is 8 respondents (57.14%). The number of SD lines with a number >10 in the pretest of the intervention group was 4 respondents (28.57%) and in the control group was 6 respondents (42.86%).

Table 2. Effect of Giving Curcuma Domestica Ointment to Reduce Stretch Marks in Adolescent Girls

Variable	pretest			p-value	posttest			p-value
	<5	5-10	>10		<5	5-10	>10	
Intervention	0	5	9	0.223	0	10	4	0.011
Control	0	6	8		0	8	6	
Total	0	11	17		0	18	10	

From the results of the research above, it can be seen that from the test results obtained p-value of each treatment in the control group and intervention group, the pretest obtained p-value 0.223 and the posttest obtained p-value 0.011, it can be concluded that each data it was obtained that there was a significant difference between before and after treatment, it can be concluded that there was a significant difference between before and after treatment. This shows that with the use of the ointment shows that the number of SD lines can fade. Striae are linear, sunken, atrophic, scar-like lesions that are pink or purple in color, then turn white (Striae Albicans, Garisa Albicantes) on the abdomen, breasts, buttocks, and thighs. Striae are caused by elastic tissue and are associated with pregnancy, excessive obesity, rapid growth during puberty and young adulthood, Chussing's syndrome and topical (long-term) corticosteroid treatment. SG shows separation of the connective tissue (collagen) under the skin. These striae are also called Striae Distansae (SD), Garisae Atrophiceae and Garisae Atrophy (Bobak, 2005; Dorlan, 2002).

Striae Distance (SD) is a common lesion affecting nearly half of adolescents and young adults, especially pregnant women. SG appears as a progressive, continuous and linear or fusiform lesion of varying length. The surface of the SD is often smooth and tense as it emerges. Older lesions tend to be atrophically indented, giving a blank sensation to palpation. SD is bald, secreting sweat or sebum (Pierard, 2005). The cause of Striae Distance is still unknown, but it is clearly related to changes in the structure of the skin's tensile strength and elasticity during periods of maximum growth and development. Skin stretching techniques are related to hormones (Shusters, 1979).

Herbal therapy is one of the complementary and alternative medicine methods, preferred because of its fewer complications and lower costs compared to invasive procedures such as laser therapy and cosmetic surgery. Prevention of the development of Striae is the same as healing and disguising wounds and scars (Mohamed, 2009). Turmeric (Curcuma Domestica) is a type of finding that contains curcuminoids, consisting of

curcumin compounds and their derivatives which include Desmethoxycurcumin and Bisdesmethoxycurcumin (Ernita, 2000). Turmeric has been known and utilized by the public widely, widely in both urban and rural areas, especially in households with various uses. The part of turmeric that is mainly used is the rhizome, which is widely used for traditional medicinal ingredients, textile dyes, cooking spices, spices, and cosmetic ingredients. The benefits of turmeric rhizome as a traditional medicine include treating itching, tingling, swollen gums, wounds, shortness of breath, stomach pain, ulcers, scabies, gout, jaundice, improving digestion, anti-diarrhea, antidote, and so on. Domestic) is a traditional plant that is widely known and has long been used by the community. Curcumin is reported to have multicellular activity because it can counteract and reduce the risk of various diseases, including antiproliferation and antioxidant activity by inhibiting 97.3% of cellular lipid peroxidation activity. In the study it was reported that curcumin compounds are effective in models of acute and chronic inflammation.

Turmeric (*Curcuma Domestica*) is a tropical spice plant that has been widely used in herbal medicine in Asia for hundreds of years. According to Wikipedia, turmeric contains medicinal compounds called curcuminoids, consisting of curcumin and desmethoxycurcumin. Turmeric is quite high in Vitamin C content, therefore this plant is often used to treat various diseases. In addition, turmeric contains antiseptic ingredients that are suitable for preventing inflammation in wounds, can treat itching, and brighten skin color

IV. Conclusion

From the results of the study, it was found that the administration of *Curcuma domestica* ointment could reduce the number of Striae Distance (SD) lines in adolescent girls.

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