

Estrogen cream for labial adhesion in girls

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Abstract

Question Should I prescribe estrogen cream to treat labial adhesion in my prepubertal female patients?

Answer Many physicians offer young girls estrogen cream to be applied on the labia for several weeks to treat labial adhesion. While no randomized controlled trial data are available, the success rate of such creams is reported in the literature to be close to 90%. Side effects of estrogen cream are mild and transient. Although the ideal frequency and length of treatment with estrogen cream has yet to be determined, most treatment recommendations suggest application of the cream 1 to 2 times a day; treatment should be applied for a few weeks before considering surgical alternatives.

Crème à l'œstrogène pour la coalescence des petites lèvres

Résumé

Question Est-ce que je devrais prescrire une crème à l'œstrogène pour traiter l'accolement des petites lèvres chez mes patientes prépubertaires?

Réponse De nombreux médecins offrent aux jeunes filles une crème à l'œstrogène à appliquer sur les petites lèvres pendant quelques semaines pour traiter la coalescence des petites lèvres. Bien qu'il n'y ait pas de données tirées d'études contrôlées randomisées, le taux de réussite de telles crèmes rapporté dans la littérature médicale se situe à près de 90%. Les effets secondaires de la crème à l'œstrogène sont légers et transitoires. On n'a pas encore déterminé la fréquence et la durée idéales du traitement avec une crème à l'œstrogène, mais la plupart des recommandations thérapeutiques suggèrent l'application de la crème 1 ou 2 fois par jour; il faut suivre le traitement pendant quelques semaines avant d'envisager des options chirurgicales.

Labial adhesion is a phenomenon recognized by many pediatricians. Also called *synechia vulvae* or *labial agglutination*, it affects close to 2% of girls in the first few years of life (prepubertal condition), with a peak incidence in the second year of life.¹

Frequently, patients present with other complaints, and a physical examination reveals the condition. Complications are usually minor and include dysuria and local inflammation in the labial area; however, labial adhesion can also be associated with urinary tract infections, and this is the main reason to treat this condition.² The exact cause of adhesion of the labia is not known, but the low prepubertal level of estrogen is one of the theories for its origin.³

While adhesion is a concern to families, the first line of therapy is reassurance, as close to 80% of labial adhesions will resolve spontaneously within a year after they are diagnosed. Other measures are estrogen cream and manual or surgical opening of the labia.

Many physicians offer young girls estrogen cream to be applied on the labia for several weeks. While no randomized controlled trials are available, the success rate of such creams is reported in the literature to be close to 90%. Three studies published in the 1970s,

with a total of 150 girls, reported success rates of 88% to 100% in opening of the labia, with minimal recurrence.⁴⁻⁶ Similarly, in a 2005 study,⁷ all 20 girls (up to 3 years of age) responded to treatment with estrogen cream, with minimal recurrence. A 2007 study from Turkey reported a success rate of 66% among 49 girls.⁸ Another study with 107 girls and a mean length of less than 4 months of treatment reported successful separation in 79% of patients; however, in this study almost 40% had recurrence and needed repeated treatments.³ Only 1 study reported a success rate of less than 50% with estrogen; it was the largest retrospective study thus far, with 262 girls.⁹ The recurrence rate was 11%.

An alternative topical treatment considered recently is 0.05% betamethasone. Using 1 to 3 courses of twice-daily betamethasone for 4 to 6 weeks showed promising results in 19 children who failed previous treatments.¹⁰ A recent retrospective study compared 131 children with labial adhesions who received either topical estrogen cream only, betamethasone cream only, or a combination of the 2 for 4 weeks on average.¹¹ There were no significant differences among the groups.

Side effects of estrogen cream are mild and transient. Patients in several studies reported breast tenderness, but this cannot be reported by infants and young children. Pigmentation changes of the vulva were also reported in several of the studies.^{4,5,7}

The ideal frequency and length of treatment with estrogen cream has yet to be determined. Several authors recommended application of estrogen cream 1 to 2 times a day, and that treatment be applied for a few weeks before considering surgical treatment alternatives.^{4,5,7} ✨

Competing interests

None declared

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References

1. Leung AK, Robson WL, Tay-Uyboco J. The incidence of labial fusion in children. *J Paediatr Child Health* 1993;29(3):235-6.
2. Pokorny SF. Prepubertal vulvovaginitis. *Obstet Gynecol Clin North Am* 1992;19(1):39-58.
3. Schober J, Dulabon L, Martin-Alguacil N, Kow LM, Pfaff D. Significance of topical estrogens to labial fusion and vaginal introital integrity. *J Pediatr Adolesc Gynecol* 2006;19(5):337-9.
4. Capraro VJ, Greenberg H. Adhesions of the labia minora. A study of 50 patients. *Obstet Gynecol* 1972;39(1):65-9.
5. Aribarg A. Topical oestrogen therapy for labial adhesions in children. *Br J Obstet Gynaecol* 1975;82(5):424-5.
6. Khanam W, Chogtu L, Mir Z, Shawl F. Adhesion of the labia minora—a study of 75 cases. *Obstet Gynecol Surv* 1978;33(5):364-5.
7. Leung AK, Robson WL, Kao CP, Liu EK, Fong JH. Treatment of labial fusion with topical estrogen therapy. *Clin Pediatr (Phila)* 2005;44(3):245-7.
8. Soyer T. Topical estrogen therapy in labial adhesions in children: therapeutic or prophylactic? *J Pediatr Adolesc Gynecol* 2007;20(4):241-4.
9. Muram D. Treatment of prepubertal girls with labial adhesions. *J Pediatr Adolesc Gynecol* 1999;12(2):67-70.
10. Myers JB, Sorensen CM, Wisner BP, Furness PD 3rd, Passamanek M, Koyle MA. Betamethasone cream for the treatment of pre-pubertal labial adhesions. *J Pediatr Adolesc Gynecol* 2006;19(6):407-11.
11. Eroglu E, Yip M, Oktar T, Kayiran SM, Mocan H. How should we treat pre-pubertal labial adhesions? Retrospective comparison of topical treatments: estrogen only, betamethasone only, and combination estrogen and betamethasone. *J Pediatr Adolesc Gynecol* 2011;24(6):389-91. Epub 2011 Sep 25.



Child Health Update is produced by the Pediatric Research in Emergency Therapeutics (PRETx) program

(www.pretx.org) at the BC Children's Hospital in Vancouver, BC. Dr Goldman is Director of the PRETx program. The mission of the PRETx program is to promote child health through evidence-based research in therapeutics in pediatric emergency medicine.

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