Postpartum Labial Adhesions

Dean A. Seehusen, MD, MPH, and J. Scott Earwood, MD

**Background:** Labial adhesions are common in young girls and menopausal women. Topical estrogen is the first line of therapy for these adhesions. Based on a systematic literature review, postpartum labial adhesions are uncommon in clinical practice. They are not painful but can prevent patients from resuming normal sexual activity. Topical estrogen therapy is an ineffective treatment option for adhesions in this setting. Surgical division under local anesthesia is usually effective.

**Case:** A 29-year-old women presented at 6 weeks after an uncomplicated vacuum-assisted delivery for a routine postpartum evaluation. Examination revealed a 5-mm labial adhesion connecting her left and right labia minora. Division under local anesthetic resulted in a complete recovery within 3 days.

**Conclusion:** Postpartum labial adhesions can usually be surgically divided under local anesthetic with complete and rapid recovery. (J Am Board Fam Med 2007;20:408–410.)
In combination with "postpartum" or "postnatal" was conducted. Relevant articles' references were reviewed for other possibly important literature. This search revealed only 9 previously reported cases of labial adhesions after vaginal delivery. Table 1 summarizes these cases.

Difficulty resuming sexual activity was the most commonly reported complaint. All but one of the previously reported cases of postpartum labial adhesions reported disruption of the vaginal mucosa. This ranged from "skid marks" to third-degree perineal laceration. The remaining case did not specifically mention presence or absence of perineal trauma during delivery. In several of the cases, including the current case, superficial lacerations were left unrepaired. Superficial labial lacerations are often left unrepaired with good outcomes. Even larger vaginal wall lacerations will generally heal with similar outcomes if left unsutured as reported in some of the Midwifery literature. Lin et al theorized that significant perineal swelling may promote adhesion formation by mechanically pressing the labia together.

Discussion

Optimal care of the perineum after delivery has been debated and researched, and practices have varied widely over the years and from institution to institution. Modern instructions for care of the postpartum perineum often include encouraging women to separate the labia with urination and periodically cleansing the perineum with a peri-bottle or sitz bath. These recommendations may be especially important for women with unrepaired labial lacerations to prevent the formation of tissue bridges from one labia to another.

Topical estrogen cream is a common therapy for childhood or postmenopausal labial adhesions. These adhesions are very superficial and are the result of mild irritation of the vaginal mucus membranes and subsequent repair. Estrogen for several days to a few weeks, along with gentle massage, is often enough to disrupt adhesions in these groups and surgical treatment is reserved for refractory cases.

A brief trial of estrogen cream was used unsuccessfully on 3 of the previously described postpartum labial adhesions. Several previous authors hypothesized that the relative hypoestrogenic state of the immediate postpartum period contributes to the formation of labial adhesions. However, this theory is not supported given that topical estrogen has failed to treat postpartum adhesions. The postpartum adhesions that have been described have all been tissue bridges or bands rather than thin membranes. The labia naturally come in close contact to one another when the legs are in the adducted position. When one or both labia have an open wound, growth of a tissue bridge across the labia can occur as a by-product of normal healing of the wound.

Most of the previously described adhesions were a few millimeters to several centimeters wide. Sur-
gical dissection was the definitive therapy in every reported case. This approach has the advantage that the procedure is brief and healing occurs rapidly versus the days to weeks required for topical estrogen to be effective. Injection of local agent provides adequate anesthesia to labial tissue, and using epinephrine helps decrease bleeding after division. Rarely, extensive adhesions may require general anesthesia.

Conclusion
Postpartum labial adhesions are rarely reported in the literature. Future research should attempt to establish the actual incidence of this condition, which may be much higher than the limited number of case reports suggests. Proper perineal care in the postpartum period may prevent labial adhesions from developing. Based on the currently available literature, topical estrogen therapy cannot be recommended. Surgical dissection done under local anesthesia should be attempted as first line therapy for postpartum labial adhesions.

References

Table 1. Summary of Reported Cases of Postpartum Labial Adhesions

<table>
<thead>
<tr>
<th>Author</th>
<th>Delivery</th>
<th>Perineal Trauma with Delivery</th>
<th>Initial Therapy</th>
<th>Definitive Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shaver et al (1986)1</td>
<td>SVD</td>
<td>Vaginal sidewall</td>
<td>Topical estrogen</td>
<td>Surgery with local anesthetic</td>
</tr>
<tr>
<td>Davenport and Richardson (1986)8</td>
<td>SVD</td>
<td>Episiotomy; massive vulvar edema</td>
<td>Surgery with general anesthesia</td>
<td>Surgery with general anesthesia</td>
</tr>
<tr>
<td>Davenport and Richardson (1986)8</td>
<td>SVD</td>
<td>Labial; massive vulvar edema</td>
<td>Surgery with local anesthesia</td>
<td>Surgery with local anesthesia</td>
</tr>
<tr>
<td>Yoong and Alderman (1990)9</td>
<td>SVD</td>
<td>Superficial</td>
<td>Surgery with general anesthesia</td>
<td>Surgery with general anesthesia</td>
</tr>
<tr>
<td>Greaves et al (1998)4</td>
<td>Vacuum-assisted delivery</td>
<td>Episiotomy; ferric subsulfate</td>
<td>Surgery with general anesthesia</td>
<td>Surgery with general anesthesia</td>
</tr>
<tr>
<td>Arkin and Chern-Hughes (2001)5</td>
<td>SVD</td>
<td>“Skid marks”</td>
<td>Topical estrogen</td>
<td>Surgery with local anesthetic</td>
</tr>
<tr>
<td>Steele and Lowry (2002)10</td>
<td>SVD</td>
<td>Labial</td>
<td>Digital separation</td>
<td>Surgery with general anesthesia</td>
</tr>
<tr>
<td>Lin et al (2002)1</td>
<td>SVD</td>
<td>Massive vulvar edema</td>
<td>Topical estrogen</td>
<td>Amniotic membrane graft</td>
</tr>
<tr>
<td>Sharma et al (2005)11</td>
<td>SVD</td>
<td>Second degree</td>
<td>Surgery with local anesthesia</td>
<td>Surgery with local anesthetic</td>
</tr>
<tr>
<td>Seehusen and Earwood (this paper)</td>
<td>Vacuum-assisted delivery</td>
<td>Second degree, labial</td>
<td>Surgery with local anesthetic</td>
<td>Surgery with local anesthetic</td>
</tr>
</tbody>
</table>

SVD, spontaneous vaginal delivery.