An Alternative Treatment for Cervical Intraepithelial Neoplasia II, III

Summer Swanick, BS, Kimberly Windstar-Hamlin, MEd, ND, and Heather Zwickey, PhD

Background. This report describes a case of a woman with progressive and recurrent cervical dysplasia 4 years after cervical conization for severe dysplasia. Patient and methods. A 20-year-old female was referred for colposcopy and biopsy following results of moderate to severe atypia of cervical cells on her Papanicolaou (Pap) test. Her colposcopy was satisfactory and her biopsy revealed cervical intraepithelial neoplasia (CIN) II, III. She refused the conventional recommendation of loop electrosurgical excision procedure (LEEP) and, as an alternative, elected to receive escharotic treatment at a frequency of 2 treatments per week for 5 weeks. In addition to the escharotic treatment she followed an oral vitamin and botanical protocol. She was followed for 5 years. Results. The patient’s 4-month and 10-month follow-up Pap smears revealed negative cervical cytology for intraepithelial lesion or malignancy. Her 10-month colposcopy was satisfactory and no lesions were noted on the colposcopic exam. Liquid based Pap results continued to remain normal for 5 years after the initiation of treatment. Discussion. Escharotic treatment of high-grade cervical neoplasias with satisfactory colposcopy holds promise as an effective and low-risk alternative therapy to LEEP and other excisional procedures.

Keywords: cervical dysplasia; complementary and alternative medicine; herbs; botanical medicine; escharotic; LEEP alternative

The purpose of women’s annual Papanicolaou (Pap) testing is to detect cytological abnormalities of the cervix, which can indicate cervical disease. This screening test has helped in early detection of cervical dysplasia, which is associated with the sexually transmitted human papillomavirus (HPV) infection. Exposure to HPV is directly linked to development of cervical dysplasia and found in up to 95% of all cervical squamous cell cancers.1 In 2006, the American Society for Colposcopy and Cervical Pathology (ASCCP) issued an updated consensus for the management and treatment of cervical cytological abnormalities. These guidelines act as the professional standard of care for management of women with cervical intraepithelial neoplasia (CIN) or adenocarcinoma in situ (AIS).2 Histological classification of CIN is a 2-tiered system based on severity: CIN I indicates low-grade lesions, while CIN II, III indicate high-grade lesions.2 The severity of histological diagnosis, used in combination with colposcopic findings, acts as the standard for determining clinical management. While spontaneous regression rates are high with CIN I, ASCCP recommends treatment to reduce incidence and mortality from invasive cervical cancer in cases of CIN II, III.2 With a satisfactory colposcopy, both ablative (cryotherapy, laser ablation, electrofulguration, and cold coagulation) and excisional (loop electrosurgical excision procedure [LEEP], cold-knife conization, laser conization, and electrosurgical needle conization) treatments may be implemented in biopsy-confirmed CIN II, III lesions; however, only excisional therapies are acceptable treatment options with unsatisfactory colposcopy.2 In either case, the entire transformation zone must be removed for the treatment to be effective.2-5

In consideration of appropriate treatment modalities, a satisfactory colposcopy indicates both excisional and ablative procedures are acceptable. Previously, LEEP was preferable to cold-knife conization because it does not require general anesthesia and the excised tissue can be used for diagnostic as well as therapeutic purposes. Also, it was believed in the early 1990’s that LEEP did not have the risks on future pregnancies that were linked to cold-knife conization, including preterm labor, low birth-weight infants, and cesarean section.4 Emergent research has demonstrated an association between LEEP and increased risk of preterm birth, premature rupture of membranes associated with the increased depth of tissue removed during the procedure,4 overall increased risk of preterm delivery, and low birth weight infants.6 The increased risk of spontaneous preterm birth has been linked to a short cervical length independent of biological or postprocedure nature.7 This implies a causal relationship between the degree of invasiveness of a cervical procedure and the risk of pregnancy complications. Since
the ASCCP considers both ablative and excisional procedures to have similar efficacy in eliminating CIN and reducing the risk of progression to invasive cervical cancer, more research on ablative options and their potential risks and benefits is warranted, especially for women in their reproductive years.

Escharotic treatment is an ablative therapy that has been used to treat cervical dysplasia in women with a satisfactory colposcopy who have refused the recommended conventional treatments. An escharotic agent is a substance that is corrosive to flesh and burns on physical contact causing sloughing of the tissues. The resultant scab is known as an eschar. Escharotic treatment involves the application of a caustic paste to superficial tissues to obliterate neoplastic growth and to allow healthy growth to occur. When performed by a licensed and appropriately trained health care professional, this procedure is believed to have positive outcomes and is accompanied by an oral protocol of immune-enhancing and anticarcinogenic supplements. The criticism of such treatments in medical literature generally addresses cases where individual patients refused the medical standard of care treatment in favor of self-prescribed, unsupervised treatment with an escharotic concoction purchased by the patient through the Internet.8,9

This report provides evidence for the efficacy of escharotic treatment for CIN II, III in a case of recurrent, high-grade neoplasia following conventional cervical conization. The strength of this case emphasizes the need for clinical research to explore the long-term effectiveness and potential risks of escharotic treatment for cervical dysplasia. Currently, there is no information in medical literature on long-term safety or complications that can be expected from this ablative procedure.

**Patient and Methods**

A 20-year-old Caucasian female was referred to our naturopathic clinic for colposcopy and biopsy after abnormal Pap smear results from her conventional physician in October 2002 revealed CIN II, III (moderate to severe dysplasia), high-grade squamous intraepithelial lesions (HSIL) with endocervical material present. She had a history of a cone biopsy for high-grade dysplasia dating back 4 years prior to her present visit, as well as present genital warts and vulvar HPV lesions with pruritis. She had several risk factors for cervical dysplasia, including early age of first intercourse, ≥3 new sexual partners in the past 12 months and 15 total partners, and a 6-year history of tobacco use. She had a history of 1 pregnancy, 1 abortion, and 0 live births. She had a family history of breast cancer, lymphoma, cervical cancer, and systemic lupus erythematosus. Her vitals were within normal limits and remained so throughout her treatment at our clinic. Her colposcopy revealed a satisfactory exam with endocervical speculum, which allowed her to be a candidate for escharotic treatment. White epithelium 1-3+, fine mosaicism, and course punctuation were noted on satisfactory colposcopic examination. The patient was given information on the escharotic treatment protocol used in this case study is a 4-step process, which takes a total of approximately 20 minutes per visit, 2 visits per week for 5 weeks. (See Table 2)

**Results**

The patient received a total of 10 escharotic treatments at a frequency of 2 treatments per week, each treatment taking 20 minutes. Adverse symptoms reported included cramping, burning and stinging pain, and spotting. All were temporary and self-resolving symptoms that may occur with this treatment. One month following the completion of her escharotic treatments she returned to clinic for a follow-up. A liquid based Pap was collected and testing for high risk HPV was performed. Pap results were satisfactory for interpretation and showed ASC-US. HPV was suspected, however, she was negative for high-risk types of HPV. Two small areas of white epithelium 1+ and fine mosaicism were noted on satisfactory colposcopic

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<tr>
<th>Supplement</th>
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<tr>
<td>Folic acid</td>
<td>10 mg per day</td>
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<tr>
<td>Vitamin C</td>
<td>6 g per day</td>
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<tr>
<td>Beta carotene, natural mixed carotenoids</td>
<td>150 000 IU per day</td>
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<tr>
<td>Green tea extract</td>
<td>500 mg per day</td>
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<tr>
<td>Indole-3-carbinol</td>
<td>200 mg per day</td>
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<tr>
<td>Antiviral HPV tincture</td>
<td>60 drops 3 times per day</td>
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*Based on emergent research, the current protocol replaces indole-3-carbinol with diindolylmethane (DIM) 300mg.10

1 2 parts echinacea, 2 parts hypericum, 1 part mahonia, 1 part lomatium, 1 part thuja, and 1 part thymus.
Table 2. Escharotic Treatment Protocol

<table>
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<tr>
<th>Step</th>
<th>Justification</th>
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<tr>
<td>1. Apply bromelain powder to the cervix. Add light source to the bromelain application to increase the temperature and activate the enzymatic action. Wait for 15 minutes.</td>
<td>Bromelain is a substance derived from the stems and fruit of pineapples and is composed primarily of proteolytic enzymes. Bromelain has known antiedematous, anticoagulant, and antimetastatic properties. It has been used to facilitate soft-tissue wound healing and is being explored for its ability to enzymatically digest burn eschar and effectively clean the wound areas following second and third degree burns. Calendula is known for its anti-inflammatory and demulcent properties. It is applied to soothe the tissues and decrease reactionary inflammation. This is the core of the escharotic treatment. Saginaria candensis has antioxidant, antimicrobial, antifungal, antiangiogenic, anticancer, irritant, and escharotic effects. This combination of herbs and vitamins has antimicrobial action, specifically against the human papillomavirus (HPV) and its local infection of the cervical tissues.</td>
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<td>2. Remove bromelain powder after 15 minutes with a cotton swab saturated with Calendula officinalis succ.</td>
<td>This combination of herbs and vitamins has antimicrobial action, specifically against the human papillomavirus (HPV) and its local infection of the cervical tissues.</td>
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<td>3. Apply escharotic preparation of ¼ tsp zinc chloride mixed with ¼ tsp of sanguinaria tincture to the cervix. Leave on for 1 minute, then removed with the Calendula succus.</td>
<td>This combination of herbs and vitamins has antimicrobial action, specifically against the human papillomavirus (HPV) and its local infection of the cervical tissues.</td>
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<td>4. Complete escharotic treatment by inserting 2 vag pack suppositories into the vagina, against the surface of the cervix. The contents of the suppositories include anhydrous magnesium sulfate, glycerin complex, hydrastis tincture, thuja oil, tea tree oil, bitter orange oil, vitamin A (as palmitate) 100 000 IU, ferric sulfate, and ferrous sulfate in polybase.</td>
<td>This combination of herbs and vitamins has antimicrobial action, specifically against the human papillomavirus (HPV) and its local infection of the cervical tissues.</td>
</tr>
</tbody>
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References


4. Sadler L, Saftlas A. Is it safe to perform LEEP on a patient before she gets pregnant? *Contemp Ob Gyn.* 2006; 51(9), 56-64.


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