Photodynamic therapy of vulvar and vaginal condyloma and intraepithelial neoplasia using topically applied 5-aminolevulinic acid

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Background and Objectives

To determine the feasibility of photodynamic therapy (PDT) of vulvar and vaginal condyloma and intraepithelial neoplasia (VIN, VAIN) and to compare PDT results with conventional treatments.

Study Design/Materials and Methods

Thirty-eight patients with vulvar or vaginal intraepithelial neoplasia (VIN) grade II/III (n = 22) or condyloma (n = 16) had 10% 5-aminolevulinic acid (ALA)-gel applied topically. After 2–4 hours, 80–125 J/cm² laser light at a wavelength of 635 nm was applied. PDT was compared to conventional treatments for condyloma (CO₂ laser evaporation) and for VIN III (laser evaporation, surgical excision).

Results

The complete clearance rate for condyloma treated by PDT was 66% and the rate for IN was 57% (as determined by biopsy). Of the neoplasia patients, none with hyperkeratotic VIN (n = 4) responded, and only one of four with increased pigmentation cleared. No scarring occurred, and postoperative discomfort lasted 4.9 ± 3.4 days. Reduced disease-free survival (DFS) was associated with multifocal VIN (P = 0.02, OR 2.17, 95% CI 1.15–4.08), but DFS did not vary with treatment mode.

Conclusions
Although PDT is not equally efficacious for all subgroups, PDT for condyloma and intraepithelial neoplasia appears to be as effective as conventional treatments, but with shorter healing time and excellent cosmetic results. Lasers Surg. Med. 30:273–279, 2002. © 2002 Wiley-Liss, Inc.

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