were queried from EPIC after institutional review board approval. All IPVs and VVs were sorted and ordered randomly. IPVs after VV triage were excluded. A total of 250 charts (50 IPVs and 200 VVs) were analyzed.

Patients presenting for IPVs versus VVs were on average older (54.1 vs 39.6 years of age), Medicare-insured (44% vs 16%), and had melanoma (10% vs 2.5%) and nonmelanoma skin cancer histories (26% vs 12%; all $P < .05$). There were no significant differences in gender, home-to-clinic distance, and new versus established patients (Table I).

There were significantly greater proportions of benign nevi (14% vs 3.5%), actinic keratoses (14% vs 5.5%), seborrheic keratoses (22% vs 3.5%), disorders of skin sensation (8% vs 2%), and nonmelanoma skin cancer (12% vs 1.5%) diagnoses in IPVs compared with VVs (Table II). IPVs were significantly more likely to present with chief complaints related to skin lesions (34% vs 18% in the VVs). Notably, a procedure was performed in 64% of IPVs.

There was no significant difference in average medication number or type initiated or discontinued between the 2 visit types (Table II). There were no differences in proportion of patients with follow-up visits or time to follow-up (Table I). Only 8% of VV patients had in-person consultation within 60 days of their VV. For the majority of VVs (71%), an IPV was not recommended.

Older adults may be overrepresented in IPVs versus VVs because skin cancers are more prevalent in older individuals and they may have more difficulties using telemedicine. Simplified connections, increased education, and house calls may be considered to improve their usage.[2] Median distance to clinic was lower for IPVs versus VVs in previous studies[3]; therefore, our discrepant findings may be because of COVID-related safety concerns. Approximately twice as many chief complaints in IPVs versus VVs were for skin lesions. Telemedicine has lower diagnostic accuracy in identifying pigmented lesions and is inadequate in diagnosing precancerous versus cancerous lesions.[4,5] Therefore, patients with concerning lesions should be scheduled for IPVs for clinical examination, dermoscopy, and possibly obtaining a biopsy specimen.

Limitations of this study include its single-center, retrospective design and the limited number of patients. We could not account for patients who temporarily relocated from their billing addresses. Outcomes were not analyzed, and this is an important topic for future study.

Our findings indicate that diagnosis, treatment, and follow-up for most dermatologic conditions does not vary between IPVs and VVs. In-person dermatology appointments should be preferentially scheduled for examination of concerning skin lesions, full-body skin examination in patients with skin cancer history, and necessary procedures.

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Conflicts of interest

None disclosed.

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5-Aminolevulinic photodynamic therapy versus carbon dioxide laser therapy for small genital warts: A multicenter, randomized, open-label trial

To the Editor: 5-Aminolevulinic acid photodynamic therapy (ALA-PDT) has been reported as a better treatment of genital warts than carbon dioxide laser

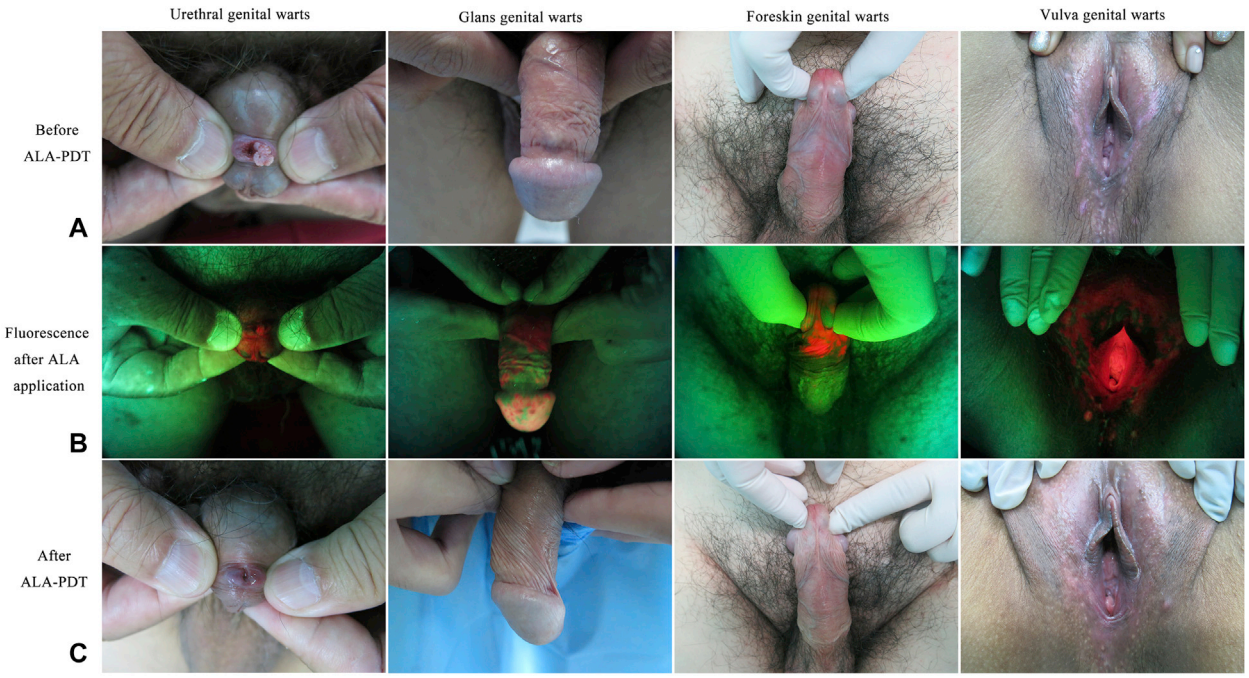

Fig 1. Images of different locations (urethral, glans, foreskin, and vaginal orifice) of genital warts. **A**, The warts located in different parts of the genitals before ALA-PDT treatment. **B**, The fluorescence on the warts after 5-aminolevulinic acid application during ALA-PDT treatment. **C**, Warts were cleared after ALA-PDT treatment. *ALS-PDT*, 5-Aminolevulinic acid photodynamic therapy.

Table I. Genital wart clearance rates and recurrence rates for the patients in the 2 groups

		Before treatment		1 week after last treatment			Follow-up			
Type	Group	Patients, n	Warts, n	Warts cleared, n (total)	Clearance rate, %*	*P* value	Patients cured, n	Recurrence, n (total)	Recurrence rate, %†	*P* value
Urethral genital warts	ALA-PDT	134	175	174 (175)	99.43	>.9999	133	14 (133)	10.53	<.0001‡
	CO_2-LT	44	58	58 (58)	100		44	16 (44)	36.36	
Total	ALA-PDT	331	505	497 (505)	98.42	.1142	325	35 (325)	10.77	<.0001‡
	CO_2-LT	111	195	195 (195)	100		111	37 (111)	33.33	

ALA-PDT, 5-Aminolevulinic acid photodynamic therapy; *CO_2-LT*, carbon dioxide laser therapy.
*Clearance rate = (number of warts cleared/total number of warts) × 100%.
†Recurrence rate = (number of patients with lesion recurrence/number of patients cured by treatment) × 100%.
‡$P < .05$.

therapy (CO_2-LT) for atraumatic and low recurrence rates of ALA-PDT.[1] However, most of the reports were based on clinical trials within a single center and with relatively small sample sizes. In this study, a multicenter, randomized, open-label trial was designed to evaluate the efficacy, recurrence rates, and the safety of ALA-PDT versus CO_2-LT in patients with genital warts.

Five centers participated in this trial, including Peking University First Hospital, Peking Union Medical College Hospital, Institute of Dermatology, Chinese Academy of Medical Sciences and Peking Union Medical College, Huashan Hospital of Fudan University, and Shanghai Skin Diseases Hospital. Of the 453 initially enrolled patients with genital warts, 331 and 111 in the ALA-PDT and CO_2-LT groups, respectively, completed at most 3 ALA-PDT/CO_2-LT cycle treatments and 12 weeks of follow-up. The baseline characteristics did not differ between the treatment arms. The study contained 505 warts in the ALA-PDT group and 195 warts in the CO_2-LT group, of which 175 (34.65%) and 58 (29.74%) warts were located on the urethral orifice and up to 5 cm within the urethra in the ALA-PDT and CO_2-LT groups, respectively.

After the first and second treatments, the clearance rate of the ALA-PDT group was significantly lower than that of the CO_2-LT group ($P < .05$). However, 1 week after the last treatment, there was no significant difference in the clearance rates, which were 98.42% (497/505) in the ALA-PDT group and 100% (195/195) in the CO_2-LT group ($P > .05$). Overall, 325 and 111 patients were completely cured in the ALA-PDT and CO2-LT groups, respectively (Fig 1 and Table I). The recurrence rates of the ALA-PDT and CO_2-LT groups were 10.77% (35/325) and 33.33% (37/111), respectively ($P < .05$). Among them, the recurrence rates of urethral genital warts in the 2 groups were 10.53% (14/133) and 36.36% (16/44), respectively ($P < .05$) (Table I).

No severe adverse events or systemic adverse effects were observed in either group. All patients in the ALA-PDT group experienced varying degrees of discomfort, but it was better tolerated than CO_2-LT ($P < .05$). In addition, the researchers' and patients' overall evaluations of the efficacy and safety were better in the ALA-PDT group than that in the CO_2-LT group.

The findings indicated that the recurrence rate with ALA-PDT was much lower than that with CO_2 carbonization, which is consistent with findings of earlier studies.[2-4] A clinical trial conducted by Wang et al[5] showed that an advantage of ALA-PDT is the potential to clear latent and subclinical human papillomavirus infection to reduce the recurrence rate. These results suggest that there may be an immune mechanism with PDT that does not occur when tissue is vaporized with a CO_2 laser.

In conclusion, ALA-PDT has similar efficacy but lower recurrence rates compared with those of CO_2-LT for the treatment of genital warts. Because the treatment was better tolerated and caused no scars or urethral strictures, the results of this study have led to its adoption as one of many recommended treatments in China.

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