Education in Psychodermatology: Herpes labialis and genitalis*

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Definition

Infection with herpes simplex-virus type I (h. labialis) or II (h. genitalis). New nomenclature: human herpes virus 1 (HHV-1) and 2 (HHV-2). HHV-1 widespread in the population (adults > 95% seropositive), HHV-2 depending on risk groups: about 10–15% in general population, > 25% in sexually promiscuous persons. Endogenous re-infections are typical, frequently based on the same influence factors such as cold, UV light, fever/infections, 'stress' and menstruation.

Coding (ICD-10): B00.100, herpes labialis; A60.010, herpes genitalis.

Clinics

HHV-1 and -2 are mostly transmitted by skin-to-skin or skin-to-mucosa contacts.

Typical findings: erythematous plaque, followed by grouped ('herpetiform') vesicles, erosions, crusts, pustules or – rarely – even ulceration and necrosis. Primary infection frequently is associated with painful gingivostomatitis.

Typical signs: burning, painful or itching lesions (prodromal signs), at primary infection also fever, headache, regional lymphadenitis, malaise, myalgia.

Most common sites: perioral, oral mucosa, cheeks, nose tip, fingers (HHV-1), genito-anal area (HHV-2). HHV-1 can also occur on genital sites, HHV-2 in the enoral and perioral area. Complications: HHV-1 and HHV-2 in most cases lead to harmless infections which, however, can be associated with severe reductions of quality of life [12, 31, 32, 35]. Erythema multiforme is a typical, but mostly harmless complication. Se-

vere complications (systemic dissemination) are mostly found in immunocompromized persons, e.g., patients in intensive care, post-transplantation, under immunosuppressive treatment or HIV-positive persons. Eczema herpeticum can be a severe complication in patients with atopic eczema. HHV-2 acquired intrapartum may lead to severe infections in newborn children.

Dermatological Diagnostics

Required: Usually clinical diagnosis, extralabial or extragenital involvement possible.

Optional: Where appropriate, smears (Tzanck test on acantholytic giant cells), viral culture, serological diagnostics, immunostatus, clarification of underlying diseases.

Psychosomatic Diagnostics

For levels of evidence and recommendations (L1–4) see table 1.

Emotional Factors in Onset and Course (L1)

Emotional stress is known in clinical experience as possible cause of attack in all forms of herpes. Numerous clinical [16, 30] and experimental [3, 28, 33] studies support this. From a psychoneuroimmunological viewpoint, emotional stressors and herpes-exacerbations are closely related [2].

Herpes labialis

The question whether psychological variables may play a role in eliciting herpes labialis infections has no uniform answer. The estimate of personal success in attaining socially desirable goals, on the other hand, has a negative correlation with the onset of herpes recurrences. Significant connections between

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Table 1. Levels of evidence and recommendations (modified after [1, 15])

Level	Evidence is based on at least ...
L1a	... one systematic review
L1b	... one randomized controlled clinical or experimental study.
L2	... one non-randomized, but controlled study
L3	... one uncontrolled, but quasi-experimental study of high methodological value
L4	... expert opinion

the stressor (everyday stress, life-altering events, anxiety) and a recurrence in the subsequent week were found in a study by Schmidt et al. [29]. By contrast, Luborsky et al. [24] found no psychosomatic relationship in the elicitation of herpes labialis. The experimental elicitation of herpes labialis recurrences in a group of patients who attributed their herpes attacks to disgust could be shown by Buske-Kirschbaum et al. [6]. After a visual presentation of disgusting pictures and objects, 8 of 10 patients in the test group developed a herpes recurrence in the following days, while this was not the case in any of the 10 patients in the control group.

Herpes genitalis

In a study to evaluate a relationship between stress and emotional well-being on the one hand and the onset of a herpes genitalis recurrence on the other hand, a correlation could be observed between depressive mood and viral infection, but no relationship to the degree of stress [18]. Other authors found psychological factors as predictors for recurrence of genital herpes infections [7, 20–22]. The retrospective casuistic studies also point to psychological triggers in a majority of cases [11, 25], but they should be evaluated with caution. The demonstrated positive influence of various psychosocial interventions on the frequency of recurrence of herpes (see below: Therapy) also confirms the hypothesis of a psychosomatic relationship in a subgroup of patients.

Emotional Problems in Adjustment (L1)

All herpes illnesses may be accompanied by considerable physical and psychosocial stress [4]. In addition to the discomfort of symptoms like burning, pain and itching, there is stress from the visibility of the lip herpes, limitations in eating and drinking, in body contact and in social activities (public meetings, sometimes on the job). The variable ‘sadness’ could be associated with the frequency of herpes recurrence in the framework of a prospective study [17]. In herpes zoster, the post-zosteric neuralgias are the greatest persistent stress, with corresponding emotional suffering [13, 27].

Diagnostic Measures

Obligatory: Discussion with the doctor about the psychosocial situation; exploration of eliciting, improving and exacerbating factors, comorbidity.
Optional: Psychometric inventories (e.g., STAI, SCL-90 or HADS in reference to psychological symptoms, MHF in reference to disease-specific adjustment, FKV with respect to coping, FLQA-H with respect to specific quality of life in herpes).

Therapy

Dermatological Therapy

External: Lotio alba, virustatic ointments, wound solutions in mucosal area.
Internal: In severe or relapsing cases virustatics (e.g., Aciclovir, Valciclovir).

Psychosomatic Therapy

The therapeutic indication exists in that there is a relationship between herpes and emotional stress. This applies to both h. labialis and h. genitalis [23].

Psychosomatic Basic Therapy (L4)

Consolidation of a therapeutic relationship. Expansion of the causal model of the disease, clarification of the psychosocial effects of the disease, conflict-oriented discussions, relaxation procedures.

Indications for Psychotherapy/Psychopharmacology (L4)

No herpes-specific indications.

Relaxation (L2)

To reduce symptoms and for prevention of additional symptoms, stress-reducing measures like autogenic training, relaxation procedures and other behavior-oriented methods may be applied [34]. A decrease in recurrence among patients by means of psychological interventions has been confirmed in one-to-one- and group interventions. Both, combined therapies (relaxation procedures, group therapy, health education) [23] and relaxation procedures alone [5, 19] have been reported as successful.

Depth-psychological and Analytical Procedures (L4)

No controlled studies. Use according to general indication criteria for these procedures.

Behavior Therapy (L4)

Participation in self-help groups coupled with cognitive restructuring [26] may help to improve coping. Behavior-therapy induced reduction of anti-HHV-2 titers in HIV-positive men [9].

Hypnosis (L3)

No controlled studies. Fox et al. [14] describe significant reductions of recurrences for HHV-2 in HIV-positive patients after hypnotherapy. Efficacy analogous to studies of other diseases (e.g., atopic dermatitis) may be assumed.

Psychopharmacology (L4)

No disease-associated indication.

Training Program and Combination Therapies (L3)

Intensified consultation had a favorable effect on the recurrence rate in non-controlled studies [8, 10].

Self-help (L4)

Participation in self-help groups coupled with cognitive restructuring [26] may help to improve coping.

Patient information

Several Websites offer good information for patients. This is a selection:
Detailed information on h. genitalis, provided by the National Institute of Health (USA, English): www.niaid.nih.gov/factsheets/stdherp.htm
Very comprehensive, updated information on herpes. Includes support groups and FAQs (USA, English): www.herpesalliance.org
Herpes information of the American Academy of Dermatology (USA, English): www.aad.org/pamphlets/herpes.html
Website of the Herpes Viruses Association (HVA) (GB, English): www.herpes.org.uk
Herpes information of the New Zealand Dermatological Society (NZ, English): www.dermnet.org.nz/index.html
Website of the New Zealand Herpes Foundation (NZ, English): www.herpes.org.nz/
Commercial Website with information on H. labialis and genitalis (D, German): www.netdoktor.de/Krankheiten/Fakta/herpes_genitalis.htm
Website of the international herpes forum; guidelines, news, congress reports (English): www.ihmf.org/Default.asp

References

- 1 Agency for Healthcare Research and Quality (AHCPR) 1992, cited after Centre for Evidence-based Medicine, <http://cebrn.jr2.ox.ac.uk/docs/lev-els.html>.
- 2 Bierman SM: A possible psychoneuroimmunologic basis for recurrent genital herpes simplex. *West J Med* 1983;139:547–552.
- 3 Blondeau JM, Aoki FY, Glavin GB: Stress-induced reactivation of latent herpes simplex virus infection in rat lumbar dorsal root ganglia. *J Psychosom Res* 1993;37:843–849.
- 4 Brookes JL, Haywood S, Green J: Adjustment to the psychological and social sequelae of recurrent genital herpes simplex infection. *Genitourin Med* 1993;69:384–387.
- 5 Burnette M, Koehn K, Kenyon-Jump R, Hutton K, Stark C: Control of genital herpes recurrences using progressive muscle relaxation. *Behav Therapy* 1991;22:347.
- 6 Buske-Kirschbaum A, Geiben A, Wermke C, Pirke KM, Hellhammer D: Preliminary evidence for herpes labialis recurrence following experimentally induced disgust. *Psychother Psychosom* 2001;70:86–91.
- 7 Cohen F, Kemeny ME, Kearney KA, Zegans LS, Neuhaus JM, Conant MA: Persistent stress as a predictor of genital herpes recurrence. *Arch Intern Med* 1999;159:2430–2436.
- 8 Connor-Greene PA: The role of counseling in the treatment of genital herpes. *J Am Coll Health* 1986;34:286–287.
- 9 Cruess S, Antoni M, Cruess D, Fletcher MA, Ironson G, Kumar M, Lutgendorf S, Hayes A, Klimas N, Schneiderman N: Reductions in herpes simplex virus type 2 antibody titers after cognitive behavioral stress management and relationships with neuroendocrine function, relaxation skills, and social support in HIV-positive men. *Psychosom Med* 2000;62:828–837.
- 10 Derman RJ: Counseling the herpes genitalis patient. *J Reprod Med* 1986;31(Suppl 5):439–444.
- 11 Dimitrov CT: Psychologische Faktoren bei Herpes Simplex recidivans Genitalis. *Z Psychosom Med Psychoanal* 1973;19:279–287.
- 12 Doward LC, McKenna SP, Kohlmann T, Niero M, Patrick D, Spencer B, Thorsen H: The international development of the RGHOoL: A quality of life measure for recurrent genital herpes. *Qual Life Res* 1998;7:143–153.
- 13 Engberg IB, Grondahl GB, Thibom K: Patients' experiences of herpes zoster and postherpetic neuralgia. *J Adv Nurs* 1995;21:427–433.
- 14 Fox PA, Henderson DC, Barton SE, Champion AJ, Rollin MS, Catalan J, McCormack SM, Gruzeliier J: Immunological markers of frequently recurrent genital herpes simplex virus and their response to hypnotherapy: A pilot study. *Int J STD AIDS* 1999; 10:730–734.
- 15 German Cochrane Center, 2001, <http://www.cochrane.de/deutsch/ccevidenzhierarchie.htm>.
- 16 Glaser R, Kiecolt-Glaser JK, Speicher CE, Holliday JE: Stress, loneliness, and change in herpes virus latency. *J Behav Med* 1985;8:249–260.
- 17 Katcher AH, Brightman V, Luborsky L, Ship I: Prediction of the incidence of recurrent herpes labialis and systemic illness from psychological measurements. *J Dent Res* 1973;52:49–58.
- 18 Kemeny ME, Cohen F, Zegans LS, Conant MA: Psychological and immunological predictors of genital herpes recurrence. *Psychosom Med* 1989; 51:195–208.
- 19 Koehn K, Burnette MM, Stark C: Applied relaxation training in the treatment of genital herpes. *J Behav Ther Exp Psychiatry* 1993;24:331–341.
- 20 Levenson JL, Hamer RM, Myers T, Hart RP, Kaplowitz LG: Psychological factors predict symptoms of severe recurrent genital herpes infection. *J Psychosom Res* 1987;31:153–159.
- 21 Longo D, Koehn K: Psychosocial factors and recurrent genital herpes: A review of prediction and psychiatric treatment studies. *Int J Psychiatry Med* 1993;23:99–117.
- 22 Longo DJ, Clum GA: Psychosocial factors affecting genital herpes recurrences: Linear vs mediating models. *J Psychosom Res* 1989;33:161–166.
- 23 Longo DJ, Clum GA, Yaeger NJ: Psychosocial treatment for recurrent genital herpes. *J Consult Clin Psychol* 1988;56:61–66.
- 24 Luborsky L, Mintz J, Brightman VJ, Katcher AH: Herpes simplex virus and moods: A longitudinal study. *J Psychosom Res* 1976;20:543–548.
- 25 Luby ED, Klinge V: Genital herpes. A pervasive psychosocial disorder. *Arch Dermatol* 1985;121: 494–497.
- 26 McLarnon LD, Kaloupek DG: Psychological investigation of genital herpes recurrence: Prospective assessment and cognitive-behavioral intervention for a chronic physical disorder. *Health Psychol* 1988;7:231–249.
- 27 Pilowsky I: Psychological aspects of post-herpetic neuralgia: Some clinical observations. *Br J Med Psychol* 1977;50:283–288.
- 28 Rasmussen AF Jr, Marsh JT, Brill NQ: Increased susceptibility to herpes simplex in mice subjected to avoidance-learning stress or restraint. *Proc Soc Exp Biol Med* 1957;96:183–189.
- 29 Schmidt DD, Zyzanski S, Ellner J, Kumar ML, Arno J: Stress as a precipitating factor in subjects with recurrent herpes labialis. *J Fam Pract* 1985;20: 359–366.
- 30 Smith GR Jr, McKenzie JM, Marmer DJ, Steele RW: Psychologic modulation of the human immune response to varicella zoster. *Arch Intern Med* 1985;145:2110–2112.
- 31 Spencer B, Leplege A, Ecosse E: Recurrent genital herpes and quality of life in France. *Qual Life Res* 1999;8:365–371.
- 32 Taboulet F, Halioua B, Malkin JE: Quality of life and use of health care among people with genital herpes in France. *Acta Derm Venereol* 1999;79: 380–384.
- 33 Ullman M: Herpes simplex and second degree burns induced under hypnosis. *Am J Psychiatry* 1947;103:828–830.
- 34 VanderPlate C, Kerrick G: Stress reduction treatment of severe recurrent genital herpes virus. *Biofeedback Self Regul* 1985;10:181–188.
- 35 Wild D, Patrick D, Johnson E, Berzon R: Measuring health-related quality of life in persons with genital herpes. *Qual Life Res* 1995;4:532–539.