From Pain to Pleasure

Surgical Treatment of Vestibulodynia

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GKS

Vestibulodynia

- Terminology
- Clinical features of the disease
- Ethiopatogenesis
- Treatment
  - Multidisciplinary vulvar clinic
  - Vestibulectomy

VULVODYNIA
Definition

- 2003 ISSVD:

  ”Vulvar discomfort,most often described as burning pain, occurring in the absence of relevant visible findings or a specific, clinically identifiable neurologic disorder

Moyal-Barracco M, Lynch P.
JReprodMed 2004

2003 ISSVD Vulvodynia Subtypes

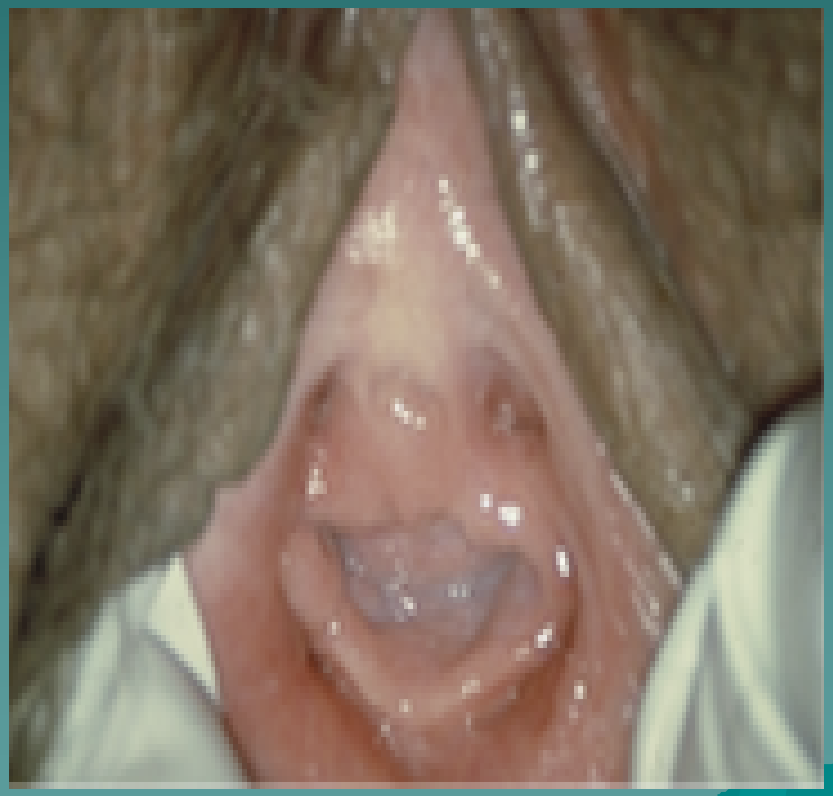
- Localized provoked vulvodynia /vestibulodynia
  = Vulvar vestibulitis syndrome
- Generalized unprovoked vulvodynia
  = Dysesthetic vulvodynia

Vestibulodynia

- Diagnostic criteria

  (Friedrich 1987)

  - Pain on vestibular touch or on attempted vaginal entry
  - Positive swab-touch test on gland openings
    - allodynia
  - No visible findings, mild erythema may be present



Prevalence

- Several studies

  in the USA 2002-2008 based on web-surveys with a confirmation of diagnosis by a gynecological examination:

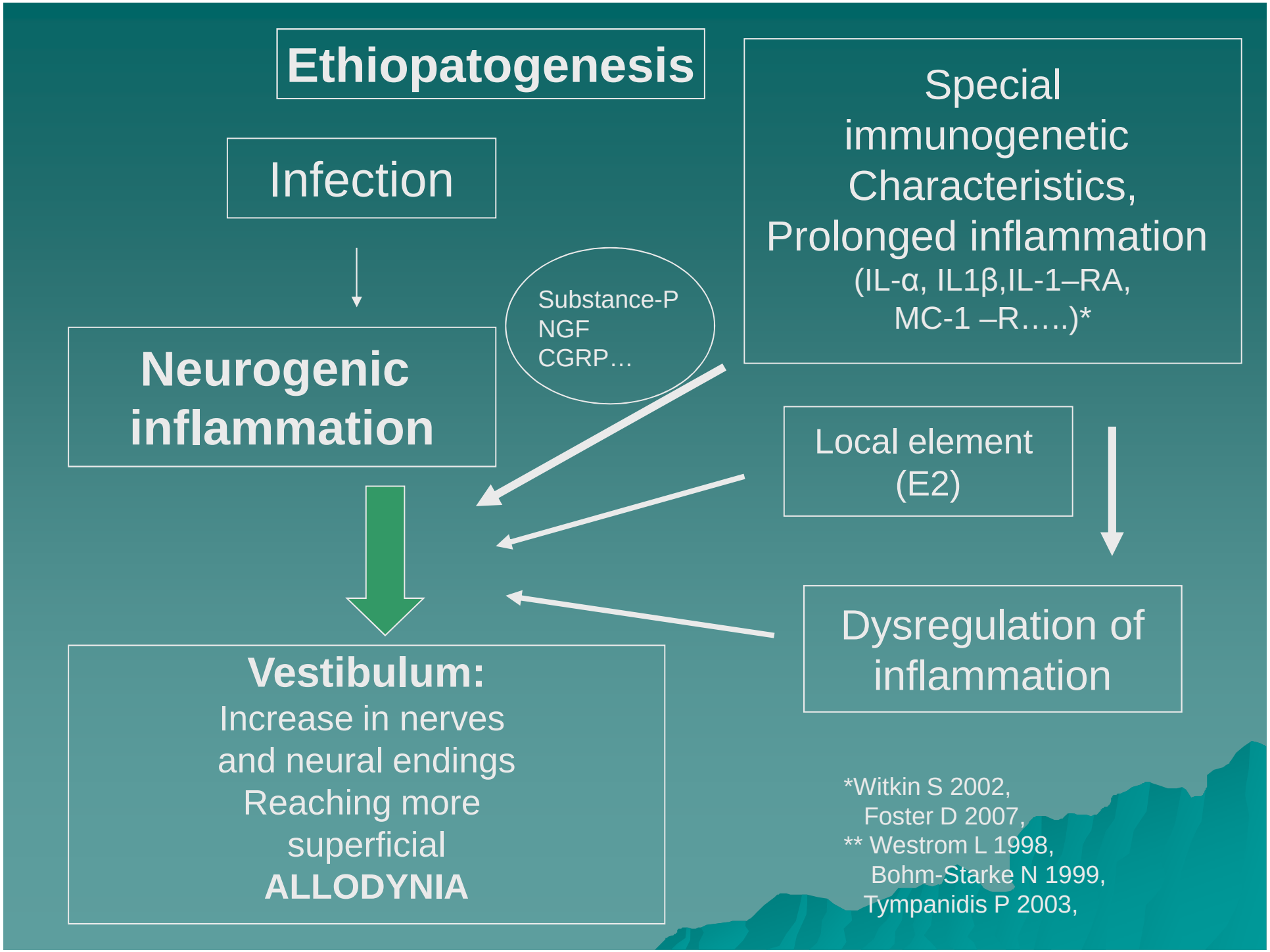
  4% - 7,5%

  Reed 2006, Obstet Gynecol

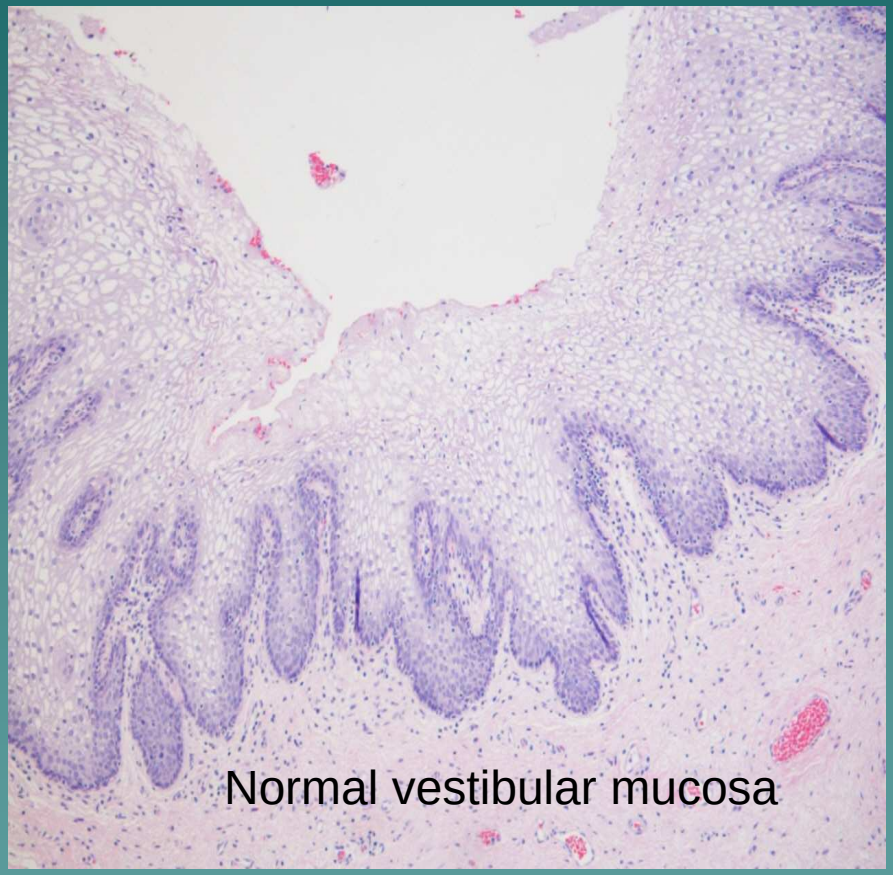
  Harlow 2009,J Women Health

Clinical Features of Vestibulodynia

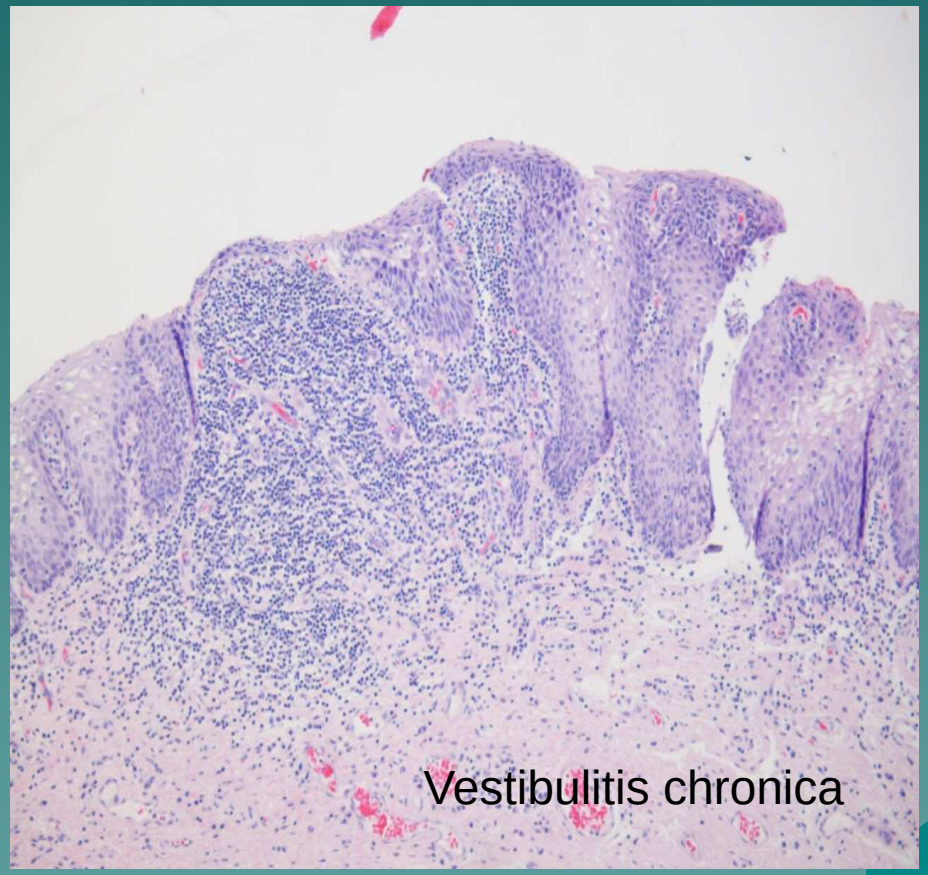
- **Pain syndrome**
  - Localized pain on vestibular touch
- Itching, sensation of dryness
- Susceptibility to vaginal infectious diseases
- Urinary tract symptoms
- Elevated tone of pelvic floor muscles /Vaginismus


Ethiopatogenesis
Infection
Special immunogenetic Characteristics, Prolonged inflammation (IL-α, IL1β,IL-1–RA, MC-1 –R…..)*
Substance-P NGF CGRP…
Neurogenic inflammation
Local element (E2)
Dysregulation of inflammation
Vestibulum:
Increase in nerves and neural endings Reaching more superficial
ALLODYNIA
*Witkin S 2002,
Foster D 2007,
** Westrom L 1998,
Bohm-Starke N 1999,
Tympanidis P 2003,

Histopathology of Vestibulodynia



Normal vestibular mucosa



Vestibulitis chronica

Treatment

Multidisciplinary vulvar clinic

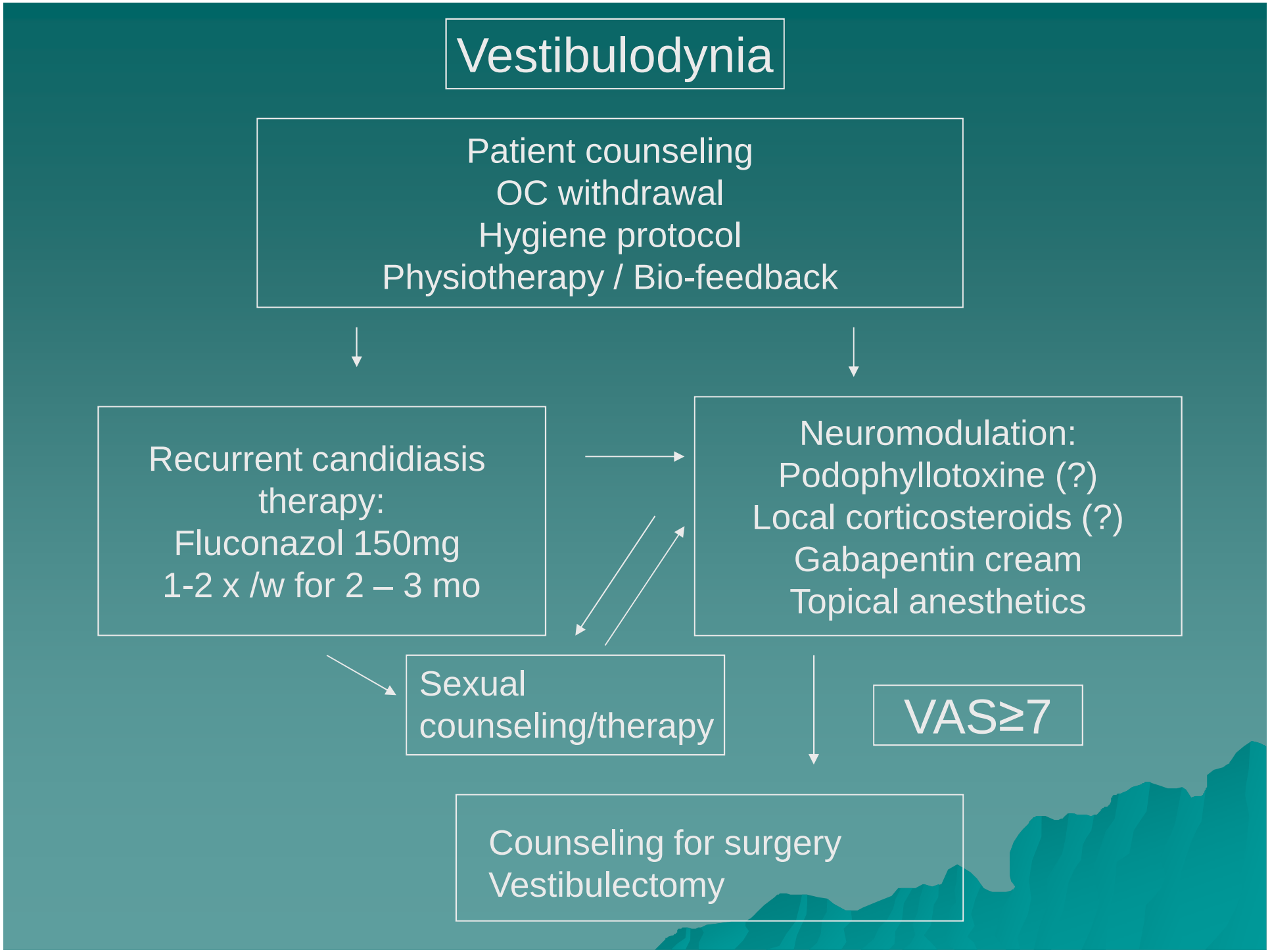
- Gynecologist
- Dermatologist
- Physiotherapist
- Sexual therapist
- Gynecologic surgeon

Realistic aim

- Reduction of pain
- Coping with pain
- Not necessarily completely painless

Conservative Treatment Options

- Hygiene protocol
- OC withdrawal
- Cognitive behavioral therapy
- **Physiotherapy**
- Long lasting medication for candidiasis
- Neuromodulation

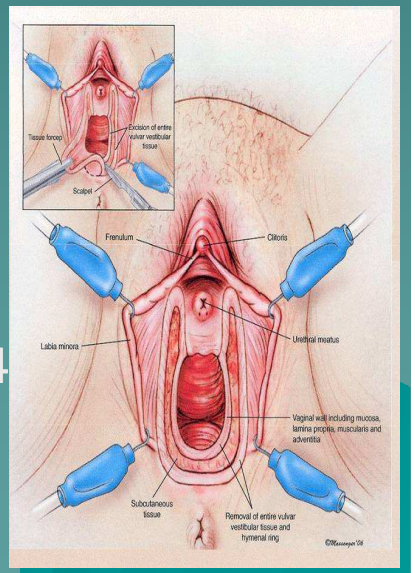

Vestibulodynia
Patient counseling
OC withdrawal
Hygiene protocol
Physiotherapy / Bio-feedback
Recurrent candidiasis therapy:
Fluconazol 150mg
1-2 x /w for 2 – 3 mo
Neuromodulation:
Podophyllotoxine (?)
Local corticosteroids (?)
Gabapentin cream
Topical anesthetics
Sexual counseling/therapy
VAS≥7
Counseling for surgery
Vestibulectomy

Indications for Vestibulectomy

- Surgery to treat pain
- Long history of severe symptoms
  - At least 12 months period of dyspareunia, VAS ≥7
- Localized provoked vestibulodynia
- No dermatosis
- Refractory to conservative treatment

Vestibulectomy

- Woodruff's perineoplasty
  - Woodruff J.D, et al Obstet Gynecol 1981;57:750
- Modified perineoplasty
  - Bornstein J, et al Harefuah 1989;116:90
- Vestibulectomy
  - Bergeron S, et al J Sex Marital Ther 1997;23:317
- **Posterior vestibulectomy**
  - Kehoe S, et al Obstet Gynecol 1999;64:147
- Modified vestibulectomy
  - Goldstein A, et al J Sex Med 2006;3:923
- Simplified vestibulectomy
  - Goetsch M, et al Am J Obstet Gynecol 1996;174
- Vestibuloplasty
  - Davis G. 12th congress of the ISSVD 1993



Systematic literature review of vestibulectomy outcome

Number of studies (1981-2008) 33

Total no. of cases 1363*

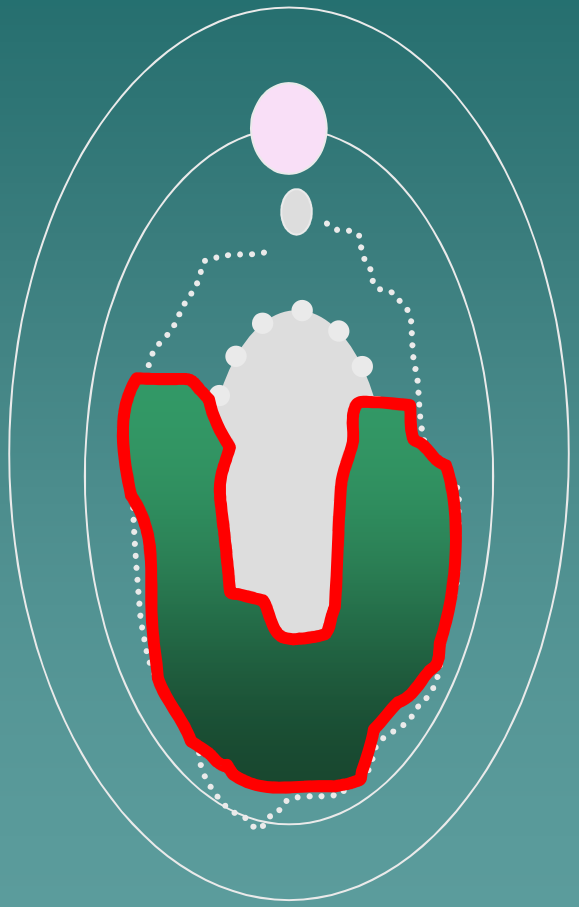
- Follow-up period 0.1 - 20 yrs

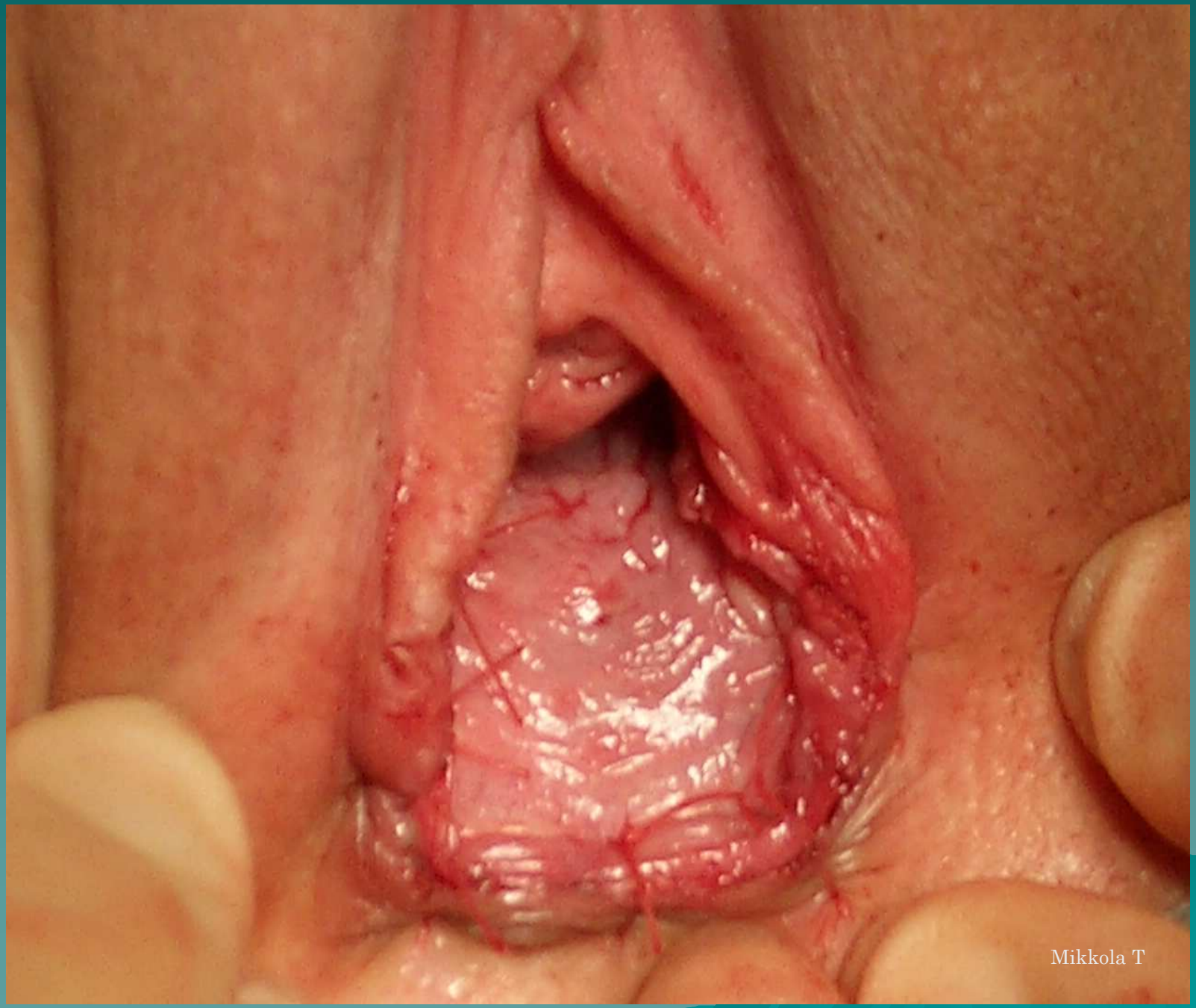
- Overall response

Significant improvement	78%
Improvement	88%
No response/failed	12%

*Tommola, Unkila-Kallio, Paavonen 2010, Acta Obstet Gynecol Scand

Modified posterior vestibulectomy



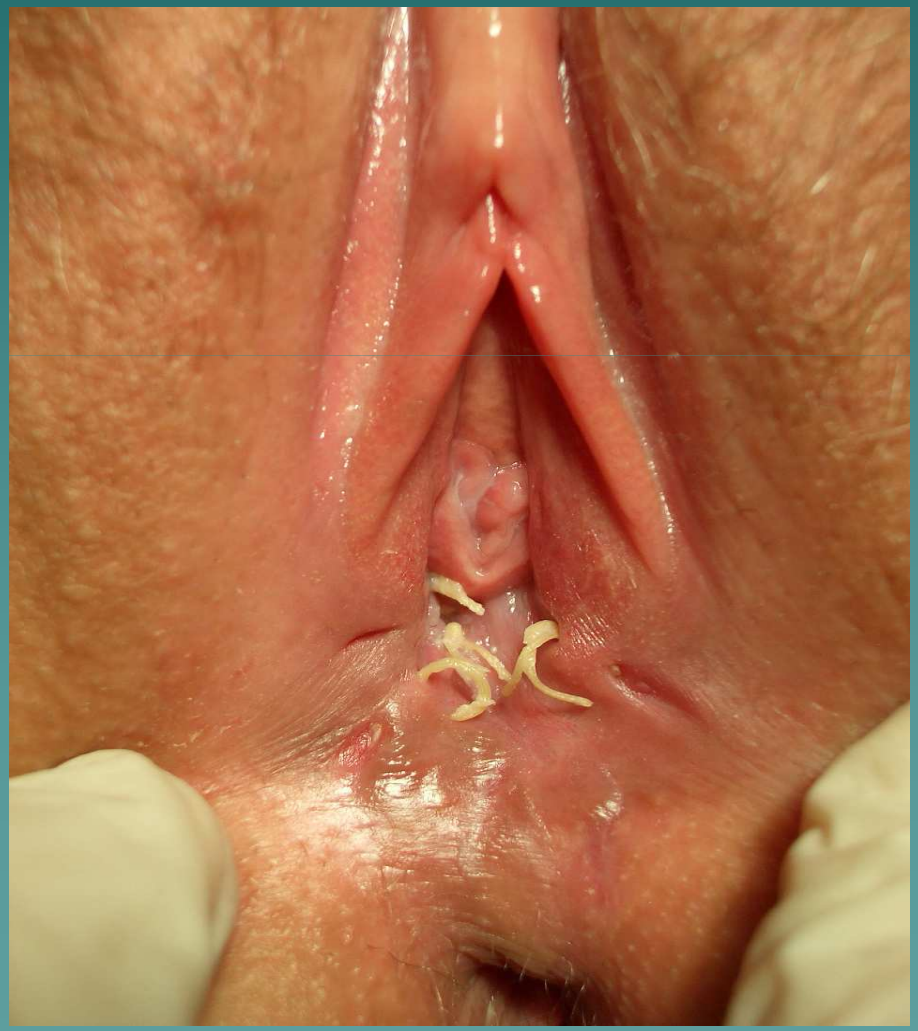

Mikkola T

Post-operative Care

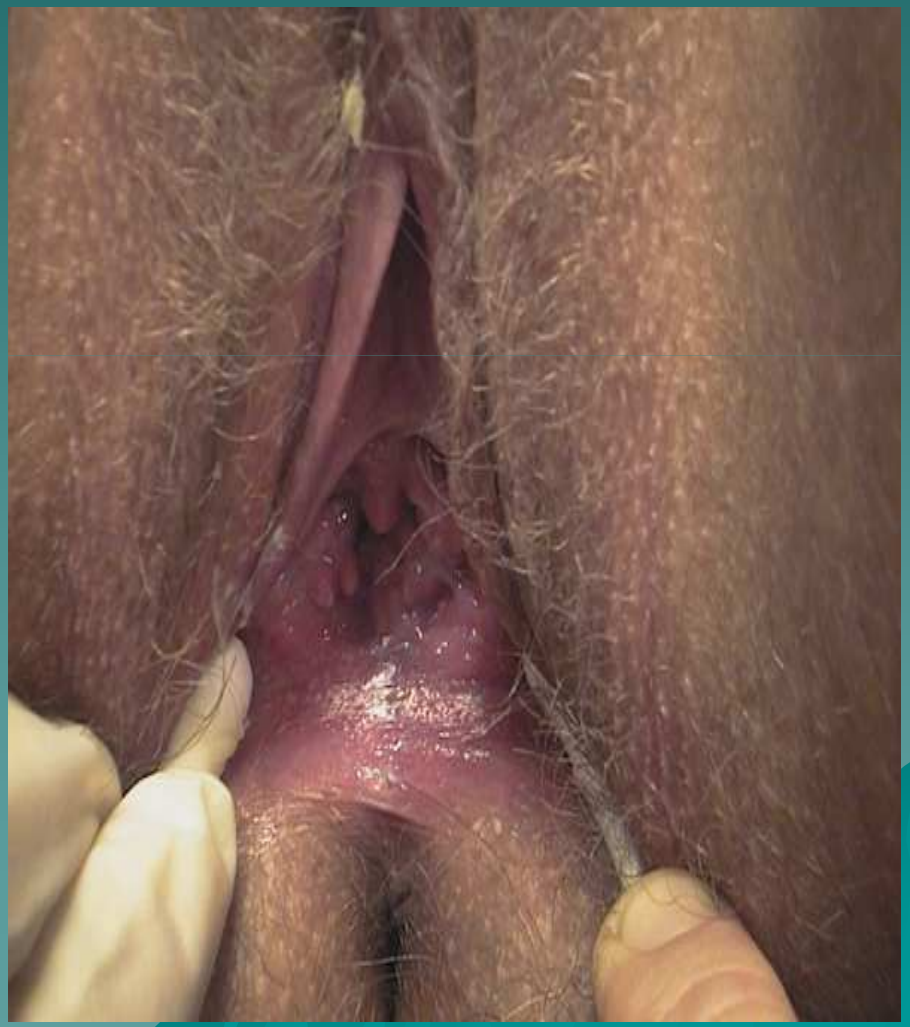
- Ice packages / cold gel packages
- Methronidazole 500 mg x 3 for 3 days
- NSAID and / or paracethamol
- Sick-leave for 2 to 3 weeks
- Arter-checks at one and two months
  - Dilatation with probes
  - Resuming intercourses

Healing

One month



Two years



Posterior vestibulectomy - long term follow-up HUCH Women's clinic 1996 -2008

- N = 70, N94.1, N76.3, LFE10
  - Severe dyspareunia, VAS ≥ 7, refractory to conservative management
- Duration of dyspareunia 4.0 yrs (1-18)
- Posterior vestibulectomy (1996-2007)
- Short term evaluation
- A long-term follow-up visit
  - Questionnaire QOL
  - VAS for dyspareunia
  - Swab-touch test

Tommola, Unkila-Kallio, Paavonen
Acta Obstet Gynecol Scand. 2011

Posterior vestibulectomy

Short-term outcome, N = 70

- Day-surgery 56 (80 %)
- Postop complications 15 (21%)
  - Haemorrhage/hematome 6 (8.6 %)
  - Wound infection/inflammation 11 (15.7 %)
- Bartholin's cyst 4 (5.7 %)
- Duration of wound pain 14 days (0-90)
- Sick leave 11 days (3-24)
- Fully recovered 5 wks (1-25)

Tommola P. et al. AOGS, 2011

Posterior vestibulectomy
Long-term outcome, N = 57

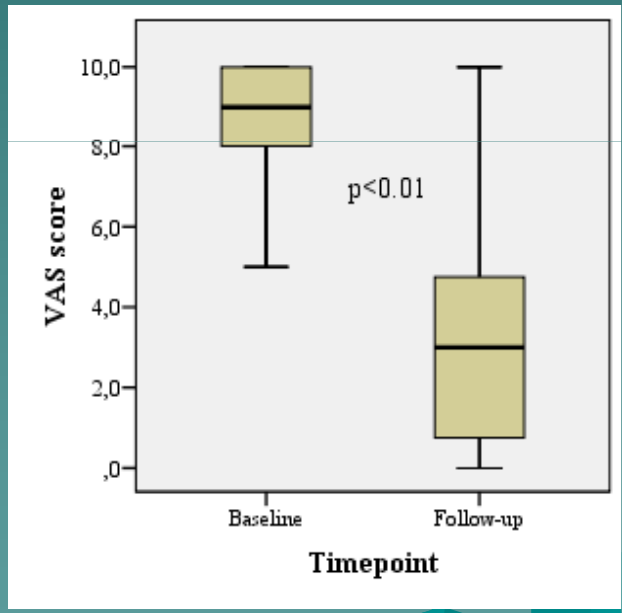
- Follow-up period 3.0 yrs (0.4-13.1)
- Age 29 (20-47)
- Regular sexual relationship (male partner) 44 (80%)
- Same male sexual partner 35/54 (65%)
- No sexual partner 11/55 (20%)

Tommola P. et al. AOGS 2011

Posterior vestibulectomy – long-term outcome

N = 57

- Swab-touch test positive (++ - +++)
  - Posterior vestibulum 8/53 (15%)
  - Anterior vestibulum 24/53 (45%)
- Swab-touch test negative 13 (25%)
- VAS decreased 66.7 %
  - Baseline VAS 9.0 (5-10)
  - VAS at follow-up 3.0 (0-10)



Swab-touch test

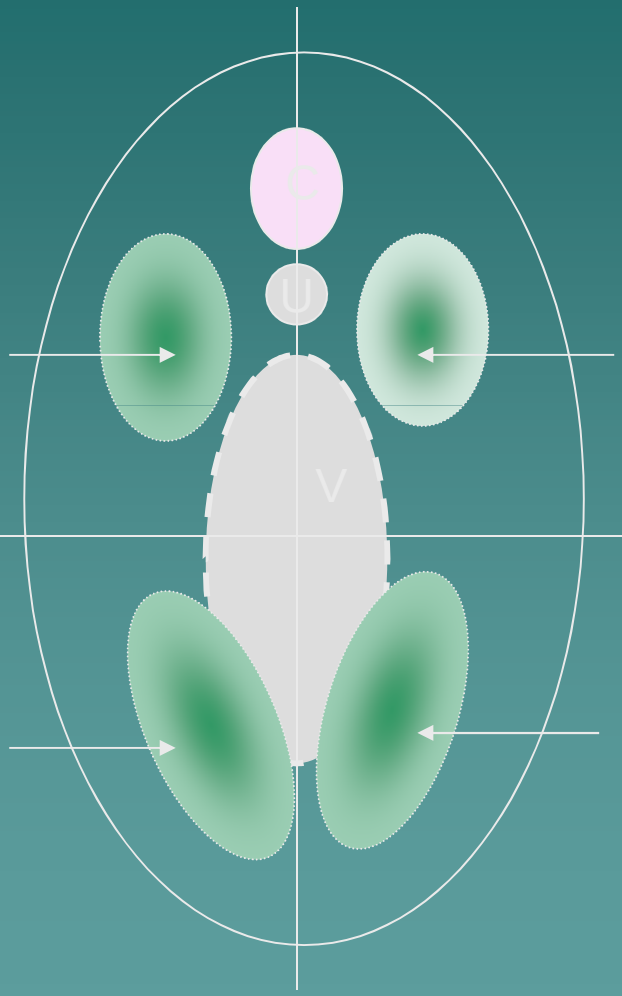
Anterior tenderness
p=0.857, ns

SURGERY GROUP
=refractory patients
N = 35

	N	%
No	14	40
Mild	8	23
Significant	13	37

CONSERVATIVE TREATMENT GROUP
=responding patients
N = 24

	N	%
No	7	29
Mild	6	25
Significant	11	46



	N	%
No	24	69
Mild	7	20
Significant	**4**	**11**

	N	%
No	4	17
Mild	5	21
Significant	**15**	**63**

Posterior tenderness
p<0.001

Tommola P, et al. Unpublished

VAS for Dyspareunia

	Surgery group N = 39	Conservative treatment group N = 27
VAS for current dyspareunia, median (IQR25%-75%)	3.0 (0.5 – 4.8)	2.0 (0.0 – 3.0) *p=0.176*
VAS change from baseline to follow-up, median (range), %	6.0 (2.9 – 10.0), 66.7%	6.3 (-1.5 – 10.0), 78.1%

Overall Patient Satisfaction

	Surgery group N=39	Conservative treatment group, N=27	
Complete response*, %	36.1	25.9	
Partial response**,%	52.8	63.0	
No response***,%	11.1	7.4	
Worse than at baseline	0	1	
Satisfied with the treatment process,%	84.8	52.5	*p=0.004*

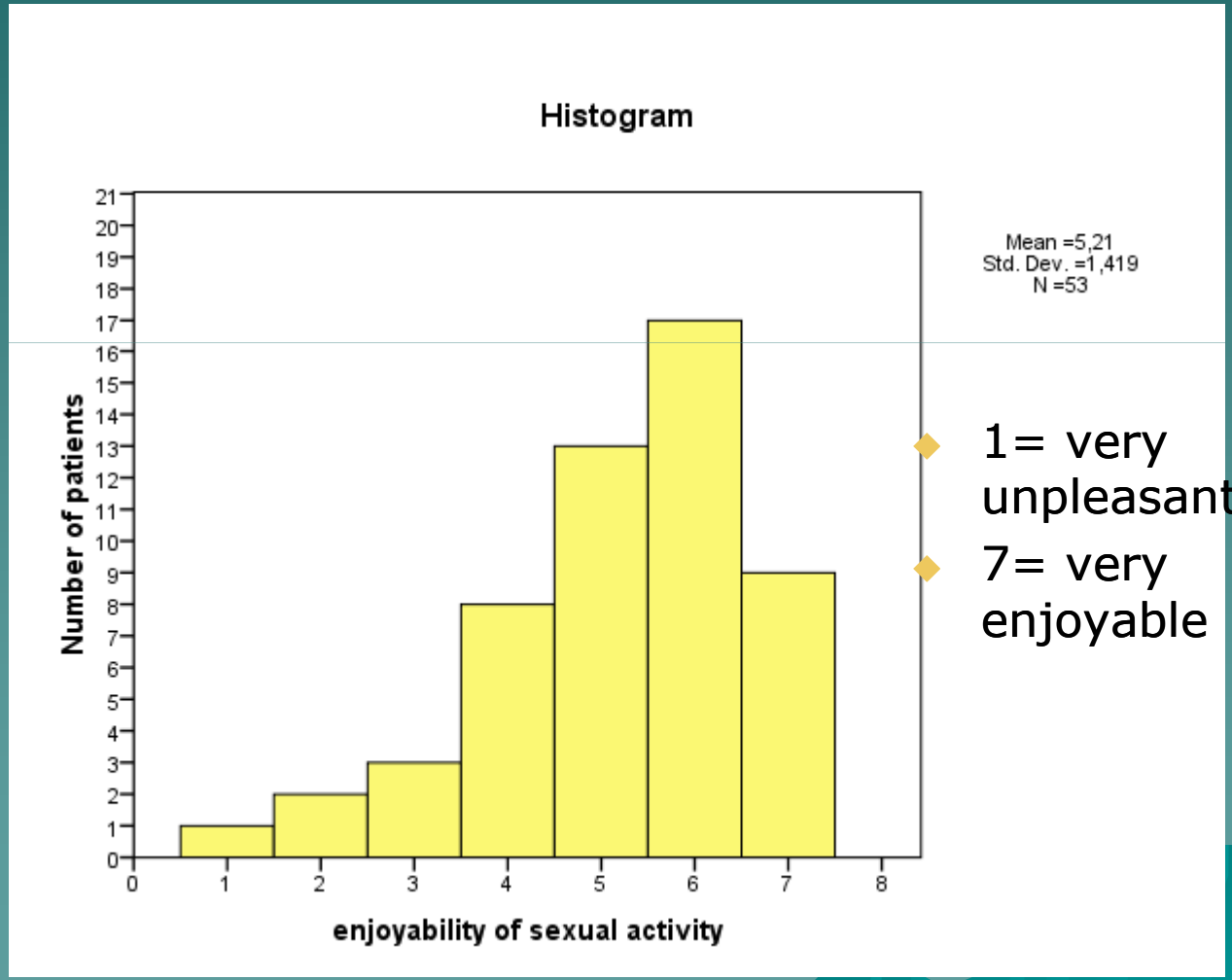
* *Completely cured*

** *Still some complaints*

*** *Not better than at baseline*

Pleasure

Enjoyability of sexual activity (McCoy) after vestibulectomy, long-term follow up



- 1= very unpleasant
- 7= very enjoyable

Conclusions

- Severe pain on vestibular touch
  - Impairs quality of life
  - Intereferes sexual well-being
- Not all patients respond favorably to conservative treatment
- Vestibulectomy is a safe and effective treatment option in severe cases refractory to conservative treatment

Thank You