Vulvovaginal Lichen Planus
The art and science

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No conflict of interest
Background: Vulvovaginal Lichen Planus (VLP)

› Uncommon
› Debilitating: considerable morbidity and impact on Quality of Life (QOL).
› Variable in clinical presentation and course
› Delayed diagnosis frequent
› Underdiagnosed
› Paucity of literature on clinical assessment, treatment and prognosis

› No widely adopted diagnostic model
› No severity stratification tools
› No randomized controlled trials of treatment options
› Diagnose VLP with confidence
› Clinically stratify severity of VLP effectively
› Applying a stepwise treatment tree in practice
Quality of Life in VLP

- High impact from chronic pain, itch, sexual dysfunction, treatment difficulties and chronically relapsing and remitting nature
- Delays in presentation, diagnosis, anxiety over malignancy risk and significant variation in response to treatment are thought to underpin the disease morbidity
- Fusion and scarring have been reported to cause more distress than in other vulval conditions eg Lichen Sclerosus
- Mean DLQI for patients with untreated VLP is 12-15
Delay in diagnosis

- No widely accepted evidence based diagnostic criteria for VLP
- It is a relatively rare condition
- Signs and symptoms of VLP are broad and overlap with other vulvovaginal conditions, a clinical diagnosis is often difficult
- Many studies have noted that a diagnostic biopsy is only possible in approximately 70-80% of the patient cohort with VLP
- Thus, criteria must be based on both clinical and pathological features to be reliable in practice
When to suspect a patient of having VLP

- Painful vulvovaginitis
- Not due to infection
- Age range (24-82yo), mean age of 56 years
- Scarring
- Overall impression is red, not white
Clinical variants in order of prevalence

- Erosive = typical disease
- Erythematous
- Persistent ulceration
- Vagina only
- Cutaneous (does not involve mucosa)
73 experts: dermatology, gynaecology, histopathology and genitourinary medicine participated in surveys for ‘supportive’ diagnostic criteria for erosive VLP $^2$

Consensus: 3 out of 9 criteria to make a diagnosis

Criteria not based on patient cohorts but clinical experience

Unspecific

Difficult to validate these criterion in practice
Retrospective study of 548 patients

- Private rooms database: 548 patients with diagnosis of VLP
- All patients responding (variably) to anti-inflammatory treatment
- Biopsies of these patients examined

- Group 1 (n=287): **Diagnostic** “features consistent with Lichen Planus”
- Group 2: (n=112)**Suggestive** “features likely to represent Lichen Planus”
- Group 3: (n=149) **Non-Diagnostic** “non-specific” or “normal”
Clinical Features of patients in each Group compared

- Pain
- Non-Infective Discharge
- Bleeding
- Itch
- Erosions
- Fissuring and ulceration
- Vaginal Stenosis
- Architectural Loss
- Hyperkeratotic border (Wickham's Striae)
- Desquamation
- Oral mucosal or skin lesions
Treatments required for control in each Group compared

- Topical and intravaginal corticosteroid and/or tacrolimus
- Oral prednisone
- Systemic immunosuppression (MTX, Aza, MMF)
- Adalimumab
Statistical analysis

› Multiple regression model

› To be included, each variate must have a significant (p<0.05) association with a diagnostic biopsy result.
Five out of these six features must be present for a diagnosis of VLP:

- Erosions
- Hyperkeratotic border to lesions/ Wickham's Striae
- Architectural Loss
- Pain
- Desquamation
- Non-Infective Discharge

Sensitivity of 96.8% (95% CI: 95.4-97.9%) and
Specificity of 92.5% (95% CI: 89.9-94.8%)
Levels of treatment

› In our cohort and practice, management was a stepwise progression
› Initially, topical corticosteroids from moderate strength to superpotent
› Often combined with vaginal cortisone.
› To treat flares or control severe disease, Prednisone was often trialed between 15 – 25mg
› The second topical treatment in practice was Tacrolimus 0.1% (adherence limited by stinging)
› Immunosuppressive therapy was the next strata: methotrexate 10-20mg Mycophenolate Mofetil 3g and Azathioprine 100mg
› Adalimumab 40mg weekly
Always biopsy from edge of erosion or area of maximal erythema
Diagnostic biopsy: commence anti-inflammatory treatment
Suggestive biopsy, predominant lymphocytes: trial of therapy
Normal or non-diagnostic biopsy => Immunofluorescence to exclude mucosal pemphigoid and use the diagnostic criteria

If normal biopsy and does not fit diagnostic criteria: you have to make a clinical call.
There is no perfect algorithm
Clinical severity

- Scarring and fusion
- Extent of disease: vestibule vs vestibule + vagina
- Pain
- VQLI
- Treatment response
Treatment recommendations

- Treatment stratification => combination of the QOL score and severity.
- Clinical characteristics relates to treatment needed to achieve control.

- **Hyperkeratotic border (Wickham's Striae), Pain, Non-Infective Discharge** on stepwise logistic regression analysis (p<0.05) are associated with patients achieving disease control with topical treatment.

- **Architectural Loss, Vaginal Stenosis and Erosions** on stepwise logistic regression analysis (p<0.05) = patients needing systemic treatment.
The Future is difficult

- RCTs into available treatment methods
- Is there a malignancy risk and how high?
- Prognosis, can we prevent scarring
- New treatment modalities: biologic agents for severe disease
- Further exploration of disease morbidity
- Exploration of risk factors and targeted prevention
References


THANK YOU FOR LISTENING

Sincere thanks to my supervisor and mentor Professor Gayle Fischer!

Questions?