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Pruritus in cutaneous T-cell lymphoma

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# Pruritus in Cutaneous T-Cell Lymphoma

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# Background

- ▶ Cutaneous T-Cell Lymphoma (CTCL) is a rare group of lymphoproliferative disorders which presents with patches, plaques and tumours.
- ▶ CTCL associated itch is frequent and severe but its pathophysiology remains unclear.
- ▶ Folliculotropic, erythrodermic and sezary variants have increased incidence of pruritus.

# Pathophysiology of Pruritus

- ▶ Despite much research, its not clear how T-cell lymphoma mediates the itch.
- ▶ Pruritis originates in the free nerve endings of the skin. Specific pruriceptors (C-fibres) have been discovered confirming there is a specific pathway for itching.
- ▶ C-Fibres transmit the itch signal to histamine-triggered and non-histaminergic neurons, then to the dorsal horn of the spinal cord and to the cerebral cortex.
- ▶ The signal is transmitted to areas of the brain that affect sensation, emotion, reward, memory and pain.
- ▶ In CTCL high levels of cutaneous inflammation, cytokines and interleukins is involved

# Assessment of Pruritus

Pruritus can have several causes - uraemic pruritus, hepatic, endocrine, haematological disorders, diabetes, HIV, pregnancy, other dermatologic conditions.

- ▶ Full/complete blood count
- ▶ Creatinine and renal function tests
- ▶ Liver function tests
- ▶ Thyroid function tests
- ▶ Erythrocyte sedimentation rate
- ▶ Chest radiography
- ▶ HIV serology
- ▶ Clinical assessment and examination – skin assessment, jaundice, anaemia
- ▶ Medication, detergent, travel history, allergies

# Treatment of Pruritus

- ▶ Lifestyle advice – clothing, bathing, heat/cold, diet, fingernails
- ▶ Topical emollients (menthol, capsicum, lauromacragols)
- ▶ Wet dressing
- ▶ Topical corticosteroids
- ▶ Anti-histamines
- ▶ SSRI anti-depressants (mirtazapine, paroxetine, sertraline, fluoxetine)
- ▶ Sodium valproate, gabapentin and pregabalin
- ▶ Aprepitant
- ▶ Phototherapy
- ▶ ECP for Sezary
- ▶ Treatment of underlying CTCL – retinoids, chemotherapy, radiotherapy

# Treatment of Pruritus - Antihistamines

- ▶ First-generation antihistamines, such as (chlorpheniramine, promethazine, hydroxyzine) central sedative effect, increased drowsiness and dementia.
- ▶ Try 2nd generation non-sedating antihistamines first:
  - Fexofenadine 180mg, Loratadine 10mg
- ▶ Mildly sedating:
  - Cetirizine 10mg
- ▶ Short term sedating anti-histamines:
  - Hydroxyzine 25mg, chlorpheniramine 4mg
- ▶ Possible contraindications – frailty, cardiac disease, pregnancy, glaucoma, respiratory disease, thyroid disease.

# References

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Thank you, any questions?

