INDIAN COUNTRY ECHO

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Growing the Ability to Deliver Quality Healthcare to American Indian and Alaska Native People.

Actinic Keratoses and Squamous Cell Carcinoma

9/17/24

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Disclosures

I. Financial – None

Objectives

I. Learn to recognize actinic keratoses (AKs) and squamous cell carcinomas (SCCs)
II. Learn standard treatment options for AKs and SCCs
III. Understand basics of AJCC/NCCN guidelines for cutaneous SCC

Helpful Resources

DermNetNZ.org

Actinic keratosis

Author: Dr Amanda Oakley, Dermatologist, Hamilton, New Zealand, 1997. Updated December 2015.

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What is an actinic keratosis?

Actinic keratosis is a precancerous scaly spot found on sun-damaged skin, also known as solar keratosis. It may be considered an early form of cutaneous squamous cell carcinoma (a keratinocyte cancer).

Actinic keratoses

Who gets actinic keratoses?

Actinic keratoses affect people that have often lived in the tropics or subtropics and have predisposing factors such as:

- Other signs of photoageing skin
- Fair skin with a history of sunburn
- History of long hours spent outdoors for work or recreation
- Defective immune system.

What causes actinic keratoses?

Helpful Resources

VisualDx.com

Actinic keratosis

See also in: External and Internal Eye, Hair and Scalp

Print | Patient Handout | Images (114)

Contributors: Rajini Murthy MD, Vivian Wong MD, PhD, Elyse M. Love MD, Sarah Hocker DO, Susan Burgin MD

Synopsis

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Actinic keratoses (AKs) are considered precancerous lesions and present as rough, scaly macules or patches arising on chronically sun-exposed skin. This is a very common condition in individuals with lighter skin colors and is virtually unseen in people with darker skin colors. AKs are commonly seen on sun-exposed skin of the face, ears, scalp (areas of hair loss), neck, upper chest, forearms, dorsal hands, shins, and, less commonly, the eyelids and periocular region. These flat, scaly papules are of varying sizes and usually begin as "rough" localized skin lesions that the patient feels but are difficult to see. They are usually asymptomatic but may be tender.

The frequency of AKs increases with age and cumulative lifetime sun exposure. They are also more common in individuals who are immunosuppressed (especially after solid organ transplantation) and in males. They may resolve with protection from ultraviolet (UV) light. Some medications (ie, capecitabine, sorafenib) may induce inflammation of existing AKs.

Patients with AKs are at higher risk for developing nonmelanoma skin cancer. AKs have the potential to evolve into squamous cell carcinoma (SCC). It is estimated that the likelihood that a given AK will evolve into an invasive SCC is approximately 0.075%-0.096% per lesion.

The term "field cancerization" is used to describe areas of skin at risk for both AK and SCC. Clinically, this manifests as numerous AKs and squamous cell carcinoma in situ (SCCIs) with or without invasive SCCs in a field of chronically sun-damaged skin. Risk factors include male sex, lighter skin color, older age, underlying immunosuppression, and the degree of prior exposure to UV light.

Related topic: actinic cheilitis

Codes

Copy

ICD10CM:
L57.0 – Actinic keratosis

SNOMEDCT:
201101007 – Actinic keratosis

Differential Diagnosis & Pitfalls

Copy

- Superficial basal cell carcinoma
- SCCIs (Bowen disease)
- Psoriasis
- Flat wart
- Common wart
- Seborrheic dermatitis – Patients with significant seborrheic dermatitis will benefit from initial treatment of dermatitis before beginning treatment for AK.
- SCC
- Seborrheic keratosis
- Discoid lupus erythematosus
- Disseminated superficial actinic porokeratosis
- Severe xerosis – Wiping the skin with water or an alcohol pad will minimize background xerosis. In addition, xerosis lacks the classic gritty sensation on light palpation.
- Lentigo (pigmented variant)
- Lentigo maligna (pigmented variant)

Diagnostic Pearls

Best Tests

Management Pearls

Therapy

Actinic Keratoses - Background

- Super common
- Pre-Cancer
- Rate of transformation 1% per year
- Often detected by their “gritty” texture
- Cumulative and prolonged UV exposure

Actinic Keratoses

Actinic Keratoses – Treatment(s)

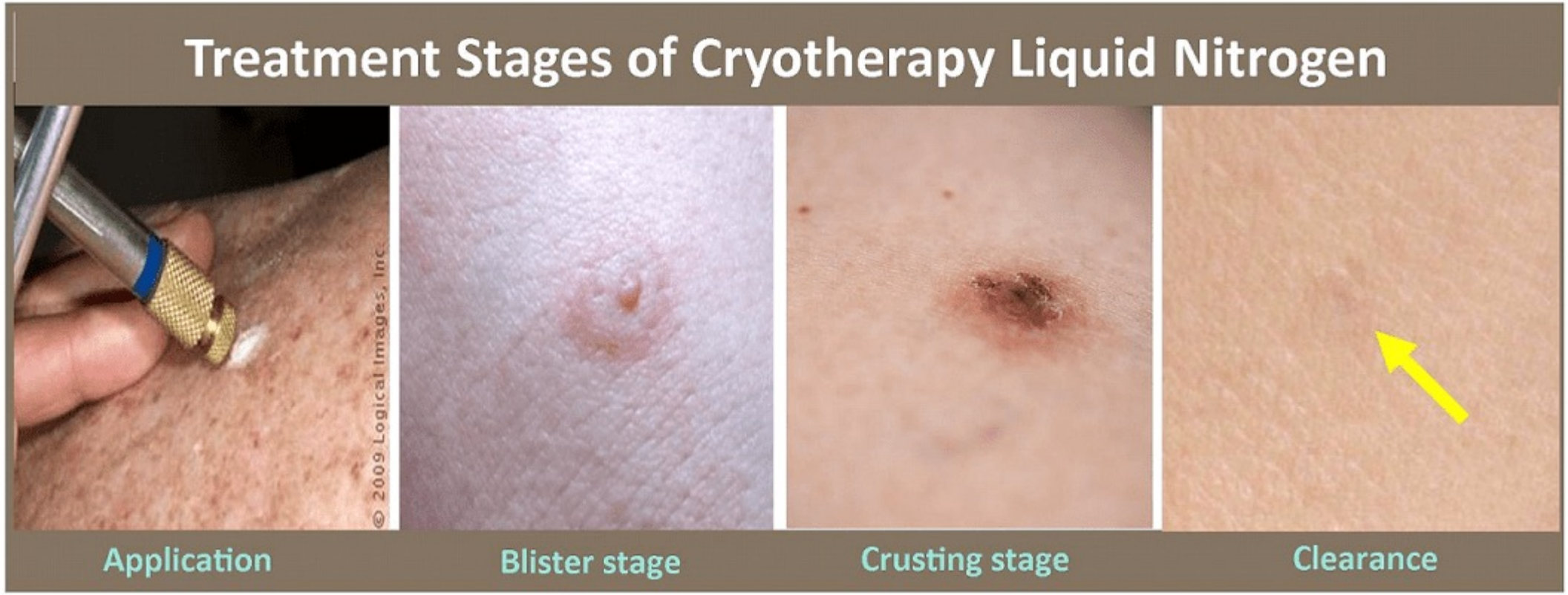
Liquid Nitrogen

- ~7 second freeze time, 2 cycles
- LN can cause dyspigmentation (#1 cause for litigation)

5-Fluorouracil (Efudex)

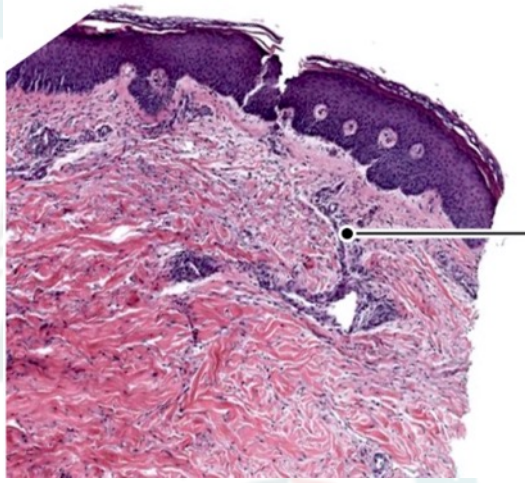
- Topical chemo cream
- Apply twice daily for 2-4 weeks
- Don’t prescribe in summer*
- Can add calcipotriene, treatment duration drops to 4-7d

Cryotherapy

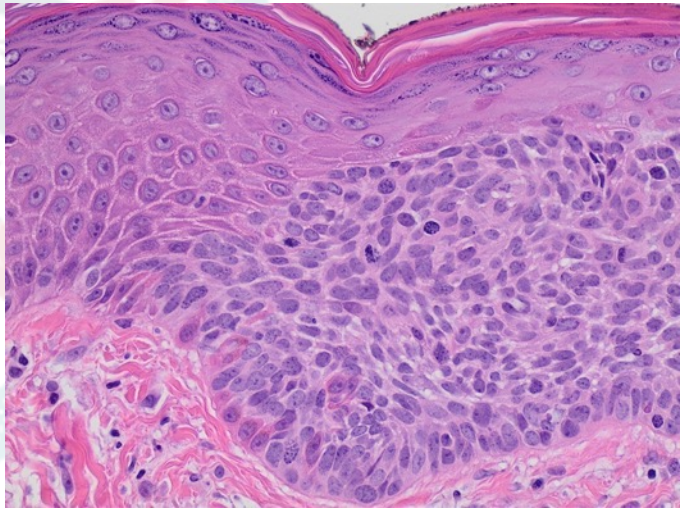


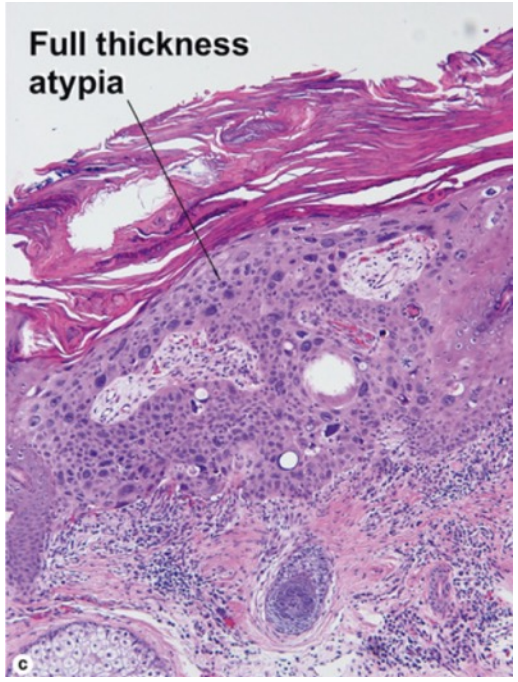
https://www.skinmdandbeyond.com/liquid-nitrogen-cryotherapy/

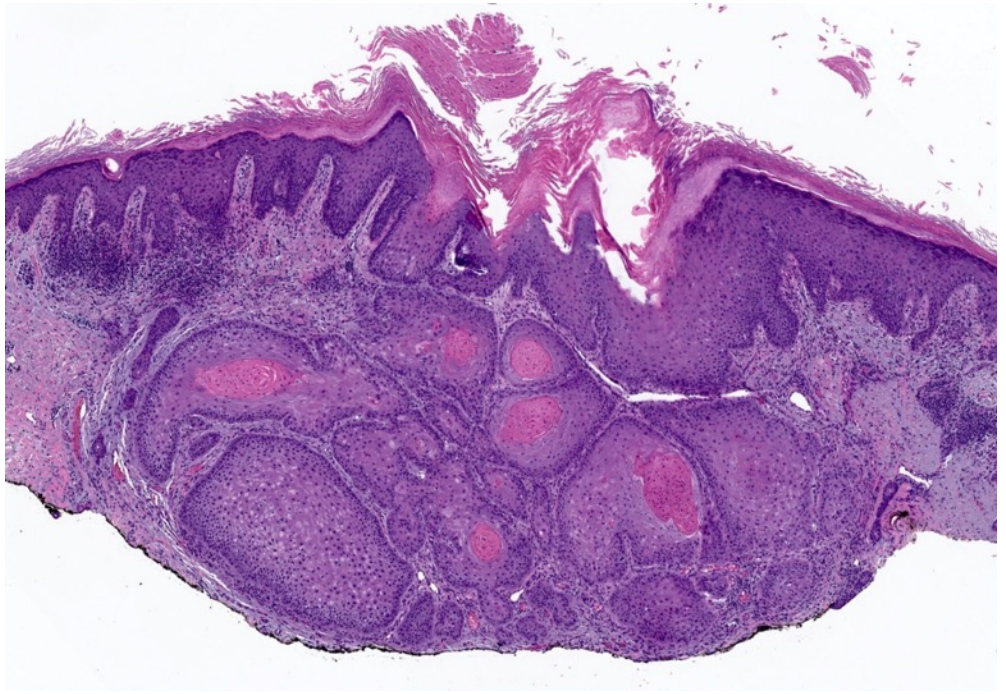
Squamous Cell Carcinoma - Background



- Atypia of lower epidermis -> AK
- Full thickness atypia -> SCCis
- Breach of atypical cells into dermis -> SCC







Squamous Cell Carcinoma - Background

- Lifetime risk 10-15%
- Induration, pain, and ulceration can be clues for SCC > AK
- Up to 2% of all SCC will metastasize
- In older patients (>80), more skin cancer deaths due to SCC than melanoma

Squamous Cell Carcinoma - Background

- Risk factors :
  - Sun exposure
  - Immunosuppressants (particularly oral calcineurin inhibitors in SOTRs)
  - HIV
  - CLL
  - HPV
  - Non-healing ulcers
  - Lichen planus (hypertrophic*)
  - Lichen sclerosus

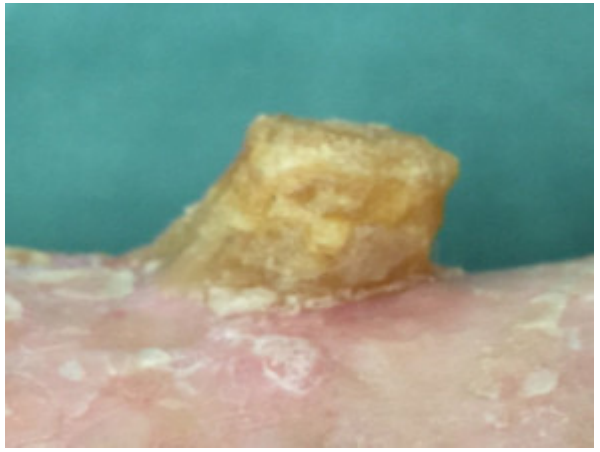
Squamous Cell Carcinoma - Background

- Increased risk of metastasis with:
  - Immunocompromised state
  - Location on lip/ear (special site)
  - Diameter >2cm
  - Breslow depth >2mm
  - Arising in a burn or scar
  - Poorly differentiated (on pathology)

Squamous Cell Carcinoma



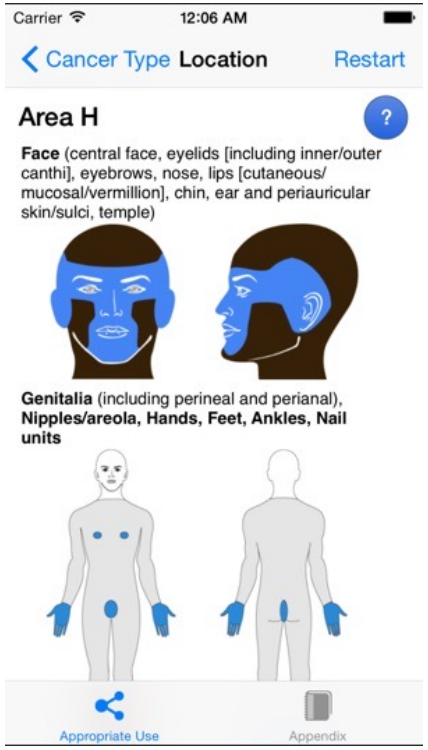





Squamous Cell Carcinoma - Treatment

- Standard of care - surgical excision
  - Electrodessication and curettage (SCCis)
  - Standard excision with appropriate margins (4mm-6mm)
  - Mohs if indicated

- Non-surgical treatment options:
  - PDT, 5-FU, imiquimod
    - Less effective
  - Intralesional methotrexate, 5-FU
  - Radiation
  - Cemiplimab
    - Adjuvant PD-1 inhibitor



Squamous Cell Carcinoma - Prevention

- Oral retinoids
  - PO acitretin
  - PO isotretinoin
- Nicotinamide 500mg BID

- Early screening
  - Follow up q6 months for the first 2 years
  - Annually thereafter

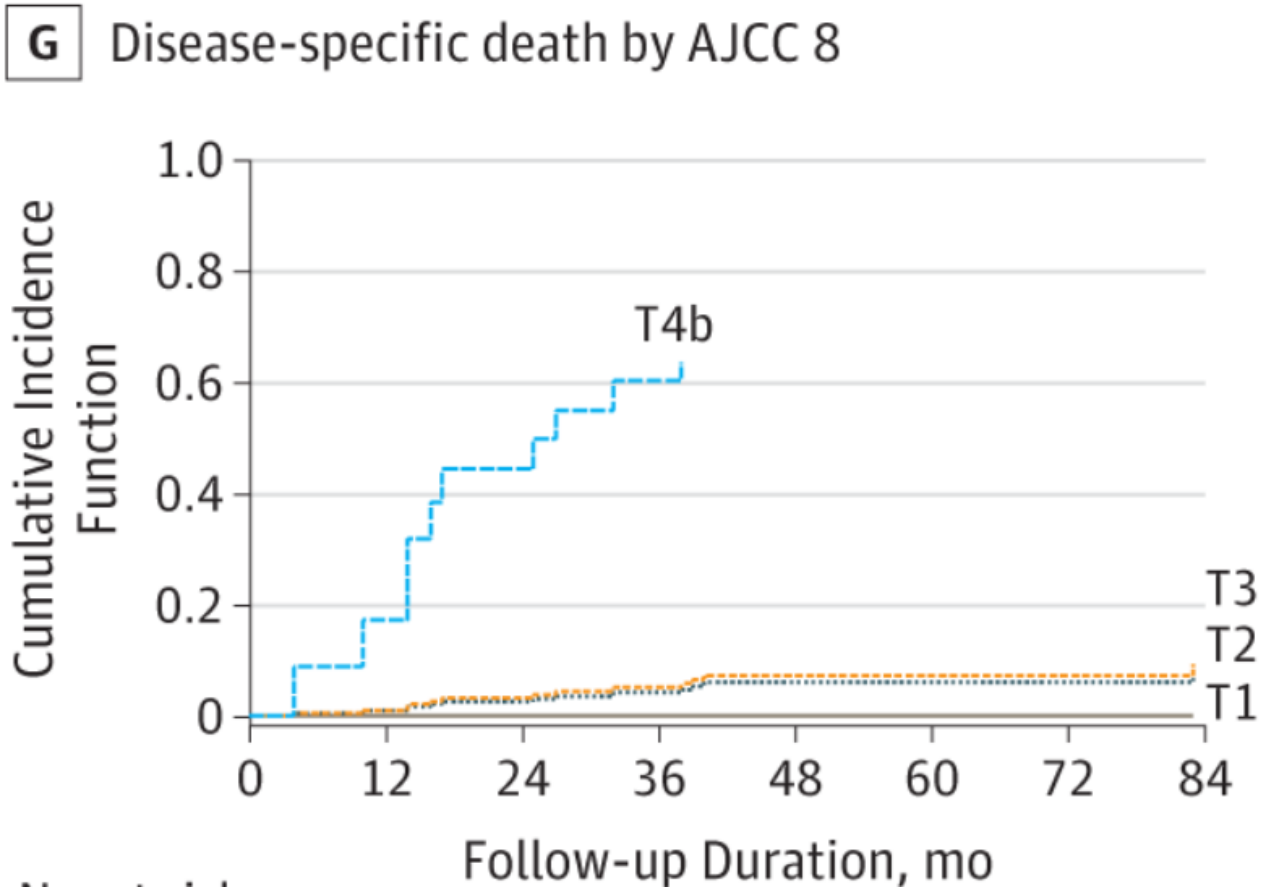
Squamous Cell Carcinoma - Prognosis

- Five-year cure rate
  - > 90%
- Recurrence timing
  - Within 2 years (75%)
  - Within 5 years (95%)
- Risk of additional NMSC
  - 50% at 5 years
- Metastases
  - Regional lymph nodes most common

Squamous Cell Carcinoma – Staging/Workup

- AJCC 8th Edition (TNM)
  - T
    - **T1 ≤ 2 cm in diameter**
    - T2 >2 but < 4 cm
    - T3 ≥ 4 cm (or perineural invasion, invasion into subcutaneous fat)
    - **T4 bony involvement**
  - N
    - N0: No clinical or radiologically apparent nodes
    - N1: Isolated ipsilateral node ≤ 3cm
    - N2-3: Multiple nodes, contralateral nodes, large nodes
  - M
    - M0: No distant mets
    - M1: Distant mets

Squamous Cell Carcinoma – Staging/Workup



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NCCN Practice Guidelines

NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)

Squamous Cell Skin Cancer

Version 1.2023 — March 10, 2023

NCCN.org

NCCN Guidelines for Patients® available at www.nccn.org/patients

Continue

Squamous Cell Carcinoma – NCCN Workup

- **Imaging** recommended if:
  - Clinically **palpable nodes** on exam
  - "**Suspicion** of extensive disease"
    - Deep involvement to bone (CT w/ contrast)
    - Named nerves (MRI w/ contrast)
    - Deep soft tissues (Either)

- **Nodal biopsy** if:
  - **Palpable** on exam
  - **Imaging positive**

Mimickers and Discussion


DermNetNZ.org

Seborrheic Keratosis


DermNetNZ.org

Wart


DermNetNZ.org

Prurigo Nodules


© Waikato District Health Board

Psoriasis

Seborrheic Dermatitis

SCCis

Thank You!

INDIAN COUNTRY ECHO

Visit: IndianCountryECHO.org

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