THE AUSTRALASIAN COLLEGE OF DERMATOLOGISTS

EROSIVE PUSTULAR DERMATOSIS OF THE SCALP (EPDS)

Also known as
Erosive pustulosis, erosive pustular dermatosis, chronic atrophic dermatosis of the scalp.

What is it?
EPDS is a rare inflammatory condition of the scalp most commonly seen in elderly males, characterised by

- thin skin (atrophy),
- raw open wounds (erosions), and
- thick adherent crusts, leading to
- permanent hair loss (scarring alopecia).

What causes it?
The cause of EPDS is a combination of four progressive factors:

- Pre-existing thin skin (atrophy) of the scalp, due to
  - Aging
  - Male pattern baldness
- Inciting injury to the thin skin of the scalp, due to
  - Accidental trauma
  - Chronic sun exposure
  - Interventions to the scalp – surgery, freezing, hair transplants, radiation therapy, photodynamic therapy
- Altered healing as a result of the chronic injury, resulting in
- Scarring of the skin and permanent loss of the hair

What does it look like?
EPDS is characterised by open wounds and adherent thick yellow brown crusts located at the centre and / or the periphery of the area of baldness.

The skin surrounding the crusts is pink, thin, and fragile, with superficial blood vessels easily visible.

What other problems can occur with it?
In 25% of patients with EPDS, concurrent autoimmune conditions include:

- Rheumatoid arthritis
- Takayasu's arteritis
- Autoimmune hepatitis
- Hashimoto's thyroiditis

Increased rates of heart disease, high blood pressure, diabetes and cancer have also been observed.

Due to the difficult nature of EPDS, healing is often interrupted by ongoing disease, leading to a problematic cycle of healing interspersed with sporadic deterioration, resulting in a recovery characterised by relapse and recurrence.

How is it diagnosed?
The diagnosis is usually made by a dermatologist after reviewing the presentation of the individual, through a combination of history and physical findings (clinical diagnosis).

A history of previous trauma to the scalp, supported by physical findings of open wounds, crusts and scarring alopecia in the presence of thin skin and significant sun damage of the scalp, is usually indicative of EPDS.

Tissue sampling (skin biopsy) only serves to confirm the diagnosis of EPDS in the presence of positive history and clinical findings.

In some cases, a tissue biopsy may be taken to exclude other serious conditions that may mimic the presentation of EPDS:

- Skin cancer – squamous cell carcinoma, basal cell carcinoma

How is it treated?

EPDS is treated in a step wise fashion:

- Removal of the crust after soaking in wet dressings
- Direct application of topical therapy to the fresh wound base underlying the removed crust, and to open erosions
    - Topical corticosteroid therapy
- Ongoing daily application of topical therapy
- Review every 4-6 weeks for ongoing healing

Protective headwear and sunscreen to the scalp is advocated at all times to minimise ongoing disease through potential trauma or further sun damage.

What is the likely outcome?

EPDS is a stubborn disease requiring extended therapy, ranging from weeks to months. During therapy, relapse and recurrence may occur. Despite therapy, hair regrowth is uncommon in areas affected by scarring alopecia.

General measures to protect the scalp from further trauma and sun exposure should be outlined. Profuse combing, harsh chemical treatments, and heated hair dryers should be avoided. Silicone gels applied to existing areas of erosion may assist with healing, and protect open areas from further trauma.

This information has been written by Dr Rudy Yeh, Dr David Wong
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