TREATMENT OPTIONS FOR PSORIASIS

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“LEARNING IS EXPERIENCE. EVERYTHING ELSE IS JUST INFORMATION.”

ALBERT EINSTEIN
PSORIASIS

- A chronic, non-infectious inflammatory skin condition that has no cure
- Characterised by well-demarcated erythematous plaques, which are thick, scaly, uncomfortable, often itchy and unsightly
- Affects between 1-3% of the UK population
PSORIASIS

• Affects males and females equally
• Can occur at any age
• Can occur anywhere on the body, with severity ranging from small patches on the elbows and knees to total body coverage
• Often an underestimated source of physical suffering and great psychological distress
PSORIASIS

• Both inherited and environmental factors play a role in developing psoriasis
• Classed as an immune-mediated inflammatory disease
• Immune factors and inflammatory cytokines (messenger proteins) are responsible for the clinical features
Psoriasis: Pathophysiology

- Langerhans cell take up & process antigens to form APC
- APC presents the antigen to T cells to form activated T cells
- Activated T cells proliferate & migrate to epidermis
- Activates T cells release cytokines like IL-8
- Induces inflammation & hyper proliferation
PSORIASIS

• Psoriasis plaques are red, raised and scaly
• 3 key events characterise the pathophysiology of psoriasis –
  • hyperproliferation of keratinocytes within epidermis
  • vascular proliferation
  • an accumulation of inflammatory cells
PSORIASIS

Dead cells flaking off at the skin surface

Stratum corneum
Stratum lucidum
Stratum granulosum
Stratum spinosum
Stratum basale
Dermis

Keratinocytes move up as they age
PSORIASIS

- 30% of patients have a family history
- Life long condition that will wax and wane
- Often manifests due to one or more trigger factors coupled with a genetic predisposition
PSORIASIS - TRIGGERS

- Skin trauma (Koebner phenomenon)
- Infection (Streptococcal)
- Medications such as antimalarials, lithium, beta-blockers, indomethacin, tetracyclines
- Stress (onset and severity may be influenced by stress)
PSORIASIS - TRIGGERS

- Climatic changes (sunlight is helpful except in 10% of patients; Autumn/Winter often aggravates psoriasis)
- Alcohol (probably reduces concordance)
- Smoking (risk of developing palmoplantar psoriasis is higher in smokers than non-smokers)
TYPES OF PSORIASIS

- Chronic plaque
- Scalp
- Guttate
- Flexural
- Facial
- Nail

- Palmoplantar
- Generalised pustular
- Erythrodermic
PSORIASIS
HOW IS IT DIAGNOSED?

• By its clinical features
• The appearance and distribution of plaques
• Nail pitting is a diagnostic feature
HOW IS IT ASSESSED?

- Physician Global Assessment
- Patient Global Assessment
- Psoriasis Area and Severity Index
- Dermatology Life Quality Index

<table>
<thead>
<tr>
<th>Severe</th>
<th>Very marked plaque elevation, scaling, and/or erythema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate to severe</td>
<td>Marked plaque elevation, scaling, and/or erythema</td>
</tr>
<tr>
<td>Moderate</td>
<td>Moderate plaque elevation, scaling, and/or erythema</td>
</tr>
<tr>
<td>Mild to moderate</td>
<td>Intermediate between moderate and mild</td>
</tr>
<tr>
<td>Mild</td>
<td>Slight scaling plaque elevation, scaling, and/or erythema</td>
</tr>
<tr>
<td>Almost clear</td>
<td>Intermediate between mild and clear</td>
</tr>
<tr>
<td>Clear</td>
<td>No signs of psoriasis (post-inflammatory hyperpigmentation may be present)</td>
</tr>
</tbody>
</table>

The DLQI - content

Sample DLQI items: Over the last week...

- how embarrassed or self conscious have you been because of your skin?
- how much has your skin interfered with you going shopping or looking after your home or garden?
- how much has your skin made it difficult for you to do any sport?
- how much of a problem has the treatment for your skin been, for example by making your home messy, or by taking up time?
HOW IS IT ASSESSED?

• Psoriasis Epidemiology Screening Tool (PEST)

• Used to screen for possible Psoriatic Arthritis
Joints commonly affected by psoriatic arthritis:

- Neck
- Shoulder
- Elbows
- Wrist
- All joints of knuckles, fingers and thumbs
- Base of spine
- Knees
- Ankles
- All joints of toes
HEALTH CONDITIONS ASSOCIATED WITH PSORIASIS

- Inflammatory Arthritis
- Inflammatory Bowel Disease
- Uveitis
- Metabolic syndrome: Obesity, Hypertension, Hyperlipidaemia, Gout, CVD, Type 2 Diabetes
CHRONIC PLAQUE PSORIASIS

• Well demarcated raised pink plaques with dry silvery scales
• Elbows and knees common sites
• Relapses and remits
• Nail pitting a diagnostic feature
Never Ask Google For medical advice
I have gone from mild headache
to clinically dead in
Three Clicks...
TREATMENTS FOR CHRONIC PLAQUE PSORIASIS

- Emollients
- Vitamin D analogue
- Vitamin D analogue in combination with steroids
- Topical corticosteroid
- Dithranol
- Coal tar
TREATMENT FOR PSORIASIS

• EMOLLIENTS
• soothe, smooth, hydrate and protect the skin
• various formulations - lotions, creams, ointments, bath oils
• important that adequate quantities are prescribed
• take into account the patients’ own preference
EMOLLIENTS
EMOLLIENTS – amount required for an adult twice daily application for 1 week

<table>
<thead>
<tr>
<th>Area of body</th>
<th>Cream/ointment</th>
<th>Lotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face</td>
<td>15-30g</td>
<td>100ml</td>
</tr>
<tr>
<td>Both Hands</td>
<td>25-50g</td>
<td>200ml</td>
</tr>
<tr>
<td>Scalp</td>
<td>50-100g</td>
<td>200ml</td>
</tr>
<tr>
<td>Both arms or legs</td>
<td>100-200g</td>
<td>200ml</td>
</tr>
<tr>
<td>Trunk</td>
<td>400g</td>
<td>500ml</td>
</tr>
<tr>
<td>Groin and genitalia</td>
<td>15-25g</td>
<td>100ml</td>
</tr>
</tbody>
</table>
EMOLLIENTS

- Any emollient containing paraffin is flammable
- Clothing or bed linen can be easily ignited by naked flame or cigarettes
- www.npsa.nhs.uk
TREATMENT FOR PSORIASIS

• VIT D ANALOGUE
• inhibits keratinocyte proliferation and accumulation of inflammatory cells
• cosmetically acceptable
• effective, well tolerated
• combined with steroid (Dovobet oint. or gel) for stable plaques once daily for 4/52
TOPICAL CORTICOSTEROIDS

- Various strengths - mild, moderate, potent, very potent
- Different formulations - creams, ointments, gels, lotions, foams
- Potency used depends on age, severity, body site, other treatments
- Measured using “fingertip units”

- Usually applied once or twice daily
- Also available in combination with antimicrobials, salicylic acid
- Well tolerated, cosmetically acceptable, with immediate efficacy
TOPICAL CORTICOSTEROIDS

Available over the counter:
Mild (suitable for all ages and all body sites)
- Hydrocortisone 1 per cent

Available on prescription only:
Moderately potent (still relatively safe and used at all sites, but best avoided on the face of children unless for short spells):
- Clobetasone butyrate 0.05 per cent
- Flurandrenolone 0.0125 per cent

Potent (can thin the skin; avoid as far as possible in children and don’t use on the face; relatively safe in mild scalp psoriasis):
- Betamethasone valerate 0.1 per cent or 0.025 per cent
- Hydrocortisone butyrate
- Mometasone furoate 0.1 per cent
- Fluticasone propionate 0.05 per cent
- Beclomethasone dipropionate 0.025 per cent
- Betamethasone dipropionate 0.05 per cent
- Budesonide 0.025 per cent
- Fluocinolone acetonide 0.025 per cent

Very potent (great care required; use for only short spells and virtually never on the face; should probably be avoided altogether in children):
- Clobetasol propionate 0.05 per cent
TOPICAL CORTICOSTEROIDS
HOW MUCH TO APPLY?
TOPICAL CORTICOSTEROIDS
Just once I would like to read a medication label that says: WARNING' May cause permanent weight loss, remove wrinkles and increase energy."
TOPICAL CORTICOSTEROIDS - local side effects

- Skin atrophy - shiny, wrinkled, fragile skin with hypopigmentation, striae or purpura
- Steroid rebound
- Allergic or irritant contact dermatitis
- Tachyphylaxis
- Perioral dermatitis
TOPICAL TREATMENTS - DITHRANOL

- Used widely and successfully for more than 80 years
- Inhibits DNA synthesis - reducing epidermal hyperproliferation
- Associated with irritation and staining
- Dithrocream and Micanol short contact for home use (30 mins)
TOPICAL TREATMENTS - COAL TAR

- Available in different strengths
- Unknown mode of action - may suppress DNA synthesis - exact composition is variable
- Usually used within hospital setting - messy, smelly, stains clothing but effective
- Associated with irritation and folliculitis
- Psoriderm cream (6%) or Exorex lotion (1%) - tar based products that are cleaner and less messy for home use
SCALP PSORIASIS

- Mild - scalp will be dry and scaly
- Mod/severe - scalp will also be red and inflammed with well defined plaques
- Any hairloss/thinning is temporary
TREATMENT FOR SCALP PSORIASIS

- Tar based shampoos
- Emollients (olive oil massaged into scalp can help remove scale and relieve itch)
- Salicylic acid helps remove the majority of scale
- Topical steroids
- Topical vitamin D analogue

- Scaling may take 7 - 14 days of nightly applications to clear
- Scalp psoriasis may take weeks to clear
- It is important to manage patient expectations
SCALP PSORIASIS
GUTTATE PSORIASIS

• Small, extensive round, scaly, red papules (like raindrops) appear commonly on trunk
• Most common in children and teenagers
• Frequently preceded by a streptococcal upper respiratory tract infection
FLEXURAL PSORIASIS

- Well demarcated red smooth plaques with little scale
- Often confused with fungal infections
- Affects sub mammary, axillary umbillicus, natal cleft and groin
FLEXURAL PSORIASIS
TREATMENTS FOR FLEXURAL PSORIASIS

- Mild/moderate topical steroid - Eumovate cream or ointment
- Topical steroid in combination with antifungals - Trimovate cream
- Vitamin D analogue - Silkis ointment
FACIAL PSORIASIS

- Common involvement includes forehead, hairline, external auditory canal or small scaly patches on the face especially the upper eyelids
TREATMENT FOR FACIAL PSORIASIS

- Mild/moderate topical steroids
- Emollients
- Vitamin D analogue (Silkis oint)
- Tacrolimus
- Low strength crude coal tar
NAIL PSORIASIS

• 25 - 50% of all psoriasis sufferers have nail involvement

• Nail changes include pitting, loosening and separation of the nail (onycholysis) or thickening of the skin under the nail (subungual hyperkeratosis)
TREATMENT OF NAIL PSORIASIS

• No topical treatment has been demonstrated to improve nail psoriasis consistently
• Keep nails short - refer to podiatry
• Females can use nail polish to camouflage
• Systemic therapy will help, but this is hard to justify unless severe on the body
Palmoplantar Psoriasis

- Palms and soles are inflamed and scaly with yellow sterile pustules
- Pustules dry to form brown macules
- More common in middle-aged females
- Associated with smoking, patients advised to stop
TREATMENTS FOR PALMOPLANTAR PSORIASIS

- Emollients
- Topical steroids (potent or very potent)
- Salicylic Acid
- PUVA (Psoralens & UVA)
- Systemic therapy
You treat a disease, you win, you lose. You treat a person, I guarantee you, you’ll win no matter what the outcome.

— Patch Adams
SUCCESSFUL TREATMENT

- Patient may have areas of post inflammatory pigmentation which can take weeks to fade
KEY POINTS OF TREATMENT

• About 70% can be managed using topical therapy
• Time spent detailing the practicalities of topical therapy is vital to achieving a successful therapeutic outcome
• Efficacy and cosmetic acceptability are key determinants of patient concordance with therapy
• Consideration should be given to the site being treated, as this influences the treatment and formulation prescribed
GENERALISED PUSTULAR PSORIASIS

- Acute form of psoriasis – derm emergency!
- Confluent sterile pustules on a background of generalised erythema
- Develops rapidly
- Associated with withdrawal of systemic steroids
- Fluid and electrolyte imbalance, high output/cardiac decompensation
- Intensive nursing care
ERYTHRODERMIC PSORIASIS

- Entire skin surface is inflamed
- Derm. emergency - potentially life threatening
- Develops rapidly
- Associated with withdrawal of systemic steroids
- Fluid and electrolyte imbalance, high output/cardiac decompensation
- Requires intensive nursing care
PSORIASIS - when to refer to Derm?

- Generalised pustular psoriasis
- Erythrodermic psoriasis
- Acutely unstable disease
- Widespread guttate psoriasis (as it responds well to phototherapy)
- Psoriasis is sufficiently extensive to make self management impractical
- Psoriasis interfering with patient’s education / employment/social life/relationships or causing psychological problems
PSORIASIS - when to refer to Derm?

- Psoriasis is in a sensitive area (face, hands, feet or genitalia) and the symptoms are particularly troublesome.
- Failure to respond to topical therapy despite concordance.
- Atypical appearance of skin eruption making diagnosis uncertain.
What can the Derm. service offer?

- Confirm or establish a diagnosis
- Provide day-care treatment facilities
- Inpatient care when necessary
- Phototherapy

- Provide advice on the condition/treatments and offer psychological support
- Treat psoriasis that is unresponsive to therapies tried at home by the patient
TREATMENT FOR PSORIASIS

- PHOTOTHERAPY
- TL01 - narrow band UVB - 2 or 3x weekly
- PUVA(Psoralens + UVA) - 2x weekly
- well tolerated, effective
- mild erythema is common
- increased risk of skin cancer
SYSTEMIC TREATMENT FOR PSORIASIS

- Poor or no response to topical therapy, TLO1 PUVA
- Received max. safe cumulative UV dose
- Physical restrictions - incapacitating hand or foot psoriasis, Ps. Arthropathy, preventing employment
- Negative impact on quality of life

- Methotrexate
- Retinoids - Acitretin
- Ciclosporin
- Hydroxyurea
- Azathioprine
- Fumaderm
- and the ‘new’ biologics!
PSORIASIS - NOT JUST SKIN DEEP

- Financial impact
- Employment
- Relationships with others (personal, family, work)
- Mood
PSORIASIS - NOT JUST SKIN DEEP

The Burden of Psoriatic Disease

- Ocular inflammation (Iritis/Uveitis/Episcleritis)
  - Crohn's disease
  - Ulcerative colitis
  - Psoriatic arthritis
  - Spondyloarthropathies
  - Nail psoriasis

Psychosocial burden
- Reactive depression
- Higher suicidal ideation
- Alcoholism

Metabolic syndrome
- Arterial hypertension
- Dyslipidaemia
- Insulin resistant diabetes
- Obesity
- Higher CVD risk

Plaque psoriasis and other forms
- Generalised psoriasis
- Palmoplantar pustulosis
PSORIASIS

• Studies comparing psoriasis with other chronic diseases have shown that the impact of the condition on the patient’s quality of life is at least as great as that of ischemic heart disease, diabetes and chronic obstructive airways disease.
GUIDELINES

- SIGN Guideline 121 diagnosis and management of ps and ps arthritis in adults

- NICE Guidance on the assessment and management of ps CG153
USEFUL CONTACTS

- The Psoriasis Association
- Dick Coles House
- 2 Queensbridge
- Northampton
- NN2 7BF
- 01604 251620
- www.psoriasis-association.org.uk

- Psoriasis and Psoriatic Arthritis Alliance
- www.papaa.org.uk

- Arthritis Care
- Floor 4, Linden Court
- 10 East Road
- London N1 6AD
- 0808 800 4050
- www.arthritiscare.org.uk
SOURCES OF INFORMATION

• www.dermnet.org.nz
• www.bad.org.uk
• www.pcds.org.uk
• www.sdns.co.uk
THANK YOU FOR LISTENING

“Our job is to love people. When it hurts. When it's awkward. When it's uncool and embarrassing. Our job is to stand together, to carry the burdens of one another and to meet each other in our questions.”

JAMIE SWARRNSKI