"The comparative frequency with which psoriasis occurs demands that not only the specialist but the general practitioner should be familiar with effective therapeutic measures directed against it."
Psoriasis isn’t contagious, but awareness is.
Key Points

1. Overview of Psoriasis
   - Page 6

2. Psoriasis in the Middle East & Africa (Egypt)
   - Page 30

3. Management of psoriasis with limited resources
   - Page 46

3. Challenges and gaps
   - Page 48

4. Suggestion of a national strategy
   - Page 51
Overview of Psoriasis

Psoriasis Patients

New concept

Burden of psoriasis

Psoriasis causes

Variants of psoriasis

Clinical types of psoriasis

Psoriasis march

QOL
# Psoriasis Patient

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3% of the world population</td>
<td>Multifactorial</td>
</tr>
<tr>
<td>Chronic</td>
<td>Systemic</td>
</tr>
<tr>
<td>Hyperproliferative</td>
<td>Chronic</td>
</tr>
<tr>
<td>Polygenic</td>
<td>Relapsing</td>
</tr>
<tr>
<td>Finger nail pit</td>
<td>Disabling</td>
</tr>
<tr>
<td>Total body skin involvement</td>
<td>Comorbidities</td>
</tr>
<tr>
<td>Disabling Arthritis</td>
<td></td>
</tr>
</tbody>
</table>

Psoriasis can affect various parts of the body, including the skin, nails, and joints, leading to a range of symptoms and impacts on quality of life.
Psoriasis

Traditional Concept

Cutaneous disease
No comorbidities
(Ps Arthritis)

New Concept

Systemic Disease
Comorbidities
Cutaneous Polymorphism

One or several Diseases?
The burden of Psoriasis

- 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
  - Generalized psoriasis
  - Palmoplantar pustulosis
What causes Psoriasis

- Immune response
- Genetic
- Environmental
- Stress
- Drugs
- Infections
- Emotional stress
- Injury to skin

Infections

Drugs

Emotional stress

Environmental

Injury to skin

Stress

Genetic

Immune response
Additional factors

**Obesity**
Obesity increases the incidence and the severity of psoriasis
Psoriasis patients eat more as a coping mechanism

**Smoking**
Smoking increases the incidence of psoriasis
Psoriasis patients smoke more as a coping mechanism

**Alcohol Consumption**
Alcohol consumption increases the incidence and the severity of psoriasis
Psoriasis patients drink more as a coping mechanism
Variants of Psoriasis

Psoriasis

- Erythrodermic
- Arthritis
- Pustular
Psoriasis in children

Incidence of psoriasis in children is increasing, estimated by 20% in Egypt.
Clinical types of psoriasis:

- Scalp
- Nail
- Palms and soles
- Geographic
- Plaque
- Oral
- Guttate
- Flexural
Arthritis

1 in 4 patients develop arthritis

Disfiguring & mutilating

Inflammatory sero-ve arthritis associated with psoriasis. Enthesitis, dactylitis & axial disease

Early intervention
How the march of psoriasis unfolds from gene to clinic

Genetic factors
- Genetic factors drive disease specific process

Environmental factors
- Triggered by environmental factors involving innate & adaptive immunity

Expression
- Leading to disease expression

Comorbidity
- Comorbidity results from chronic inflammation

Impact of Psoriasis on QOL

- Significant impact on QOL
- Negative physical impact
- Negative psychological impact
- Stigmatized
- Insensitive reactions from people
Withdrawal, anxiety and depression

Very low QOL, worse than patients with stroke, COPD, heart disease & diabetes

Survey by the US National Psoriasis Foundation
Psoriasis has a moderate to large Impact on QOL in 75% of Psoriasis patients
Factors affecting QOL

- Disease severity
- Age of onset
- Gender
- Location

Underestimated by disease severity score.

Weak association between PASI score and impaired QOL.

Lesions located on visible body parts.
Psoriasis doesn’t have to be severe to impair the quality of life!

Scalp psoriasis is visible, persistent & inconvenient so it is the most difficult aspect of the disease, with marked negative impact on the QOL.
Cumulative Life Course Impairment “CLCI”

Cumulative impairment acquired by the psoriasis patient over a lifetime.

Reflects chronic nature of the disease.

Repercussions including stigmatization physical & psychological comorbidities

Factors playing a moderating role making patient less vulnerable.
Cumulative Life Course Impairment “CLCI“

External Factors

Supportive Environment

Coping Strategies

Personality Style
Cumulative Life Course Impairment “CLCI”

Patients reported psoriasis had an important influence on major life decisions

Choice of work & career

Education

Marriage and having children

Early retirement

Comorbidities

↑ risk of cardiovascular disease (Hypertension & Heart Failure), metabolic syndrome, diabetes & obesity compared with non-psoriatic skin diseases

Psoriasis is an independent risk factor for coronary artery calcification, MI & stroke.

The risk associated with psoriasis is greatest in young patients with severe disease and increases with age.
Management of Psoriasis

- Light Therapy
- Climatotherapy
- Stop smoking
- exercise
- Healthy Diet
Breakthroughs in Psoriasis therapy

- **1900-1925**: UVB, Coal Tar
- **1925-1953**: Hydrocortisone, Anthralin
- **1952-1953**: MTX
- **1953**: Retinoids
- **1967**: Cyclosporine
- **1974**: PUVA
- **1982**: NBUVB
- **1994**: Vit D Analogues
- **1996**: Monoclonal Antibodies
- **1998**: Fusion Proteins
- **2000**: FUTURE
- **2014++**
Treatment of Psoriasis

Topical treatment
- Steroids.
- Emollients.
- Anthralin.
- Tar.
- Vit D analogues.
- Salicylic acid.
- Retinoids
- Tazarotene

Systemic treatment
- Methotrexate.
- Cyclosporin.
- Acitretin.
- PUVA.
- NBUVB.
- Biologics
Long term management

- Individualization of therapy
- Patient’s Perception of severity
- Reconciling extent of disease
- Potential side effects of specific treatments
Guidelines

German evidence-based guidelines for the treatment of Psoriasis vulgaris (short version)

A. Nest · I. Kopp · M. Argentine · K. R. Banditt · W. J. Boechcke · M. Follmann · M. Friedrich · M. Huber · C. Kalb · J. Klaus · J. Kout · L. Kruschwitz · J. Meller · U. Mverritz · H. M. Okenlib · B. D. Orzechowski · J. Prinzi · B. Rieck · T. Roseneck · S. Roseneck · M. Schlaeger · G. Schmidt · M. Schremien · V. Strol · T. Weberscheick · K. Rönny

Received: 13 February 2007 / Accepted: 14 February 2007 / Published online: 12 May 2007
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Abstract Psoriasis vulgaris is a common and chronic inflammatory skin disease which has the potential to significantly reduce the quality of life in severely affected patients. The incidence of psoriasis in Western industrialized countries ranges from 1.5 to 2.5%. Despite the large amount of information on how to best apply the treatments described for full version, please see Nest et al., JDDI, Suppl 2:31–S126, 2006; or http://www.psoriasis-fflinic.de

Keywords Evidence-based guidelines

Spanish


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ACTAS Dermosifilográficas
Psoriasis in the Middle East & Africa.

Limited literature

Egyptian Experience

The Egyptian study

Studies in the Middle East on QOL

Different Cases
Limited literature

Literature regarding psoriasis & its management in the geographically large, culturally diverse & heterogeneous regions of the Middle East & Africa is limited, compared with the large volume of data from the western World.

Management of Psoriasis in Africa and the Middle East: a Review of Current Opinion, Practice and Opportunities for Improvement

M Abdulghani1, A Al Sheikh2, M Alkhawajah3, A Ammouy4, F Beibens5, H Benchikh5, I Benkaïda7, N Doss8, A El Gendy9, I Mokhtar10, D Odendaal11, N Rabooee12, D Thaci13, R Weiss14 and D Whitaker15

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Studies in the Middle East & Africa on Incidence of psoriasis

2 small single centre studies in Saudi Arabia 2004, 2005

1.5% in South Western SA.

3.4% in Eastern SA.

Larger study across 5 hospitals in Johannesburg SA.

9.6% in Indian patients.

Shelleh et al SMJ 2004, Alakloby et al SMJ 2005

Hartshorne Clin Exp Derm 2003
Studies in the Middle East on QOL

Kuwait, Iran & Tunisia.

Same findings as Western countries.

Psoriasis affected physical activities and social relationships in ≥ 50% & sexual activity in 33% of 330 Kuwaiti outpatients as measured by the Dermatology QOL scale.

Al-Mazeedi et al.2006 Int.J.Derm
Egyptian Experience

- Psoriasis Clinic.
- Department of Dermatology Ain Shams University.
- International Psoriasis Network.
- Registry.
Objectives

Classification and clinical characterisation of psoriasis in Egyptian patients (phenotypes)

Multicentre studies

Protocol for treatment

Difficult cases (HCV)


Egypt Fact:
Population 85 million
40% under poverty line
# Psoriasis Questionnaire

<table>
<thead>
<tr>
<th>Patient's name:</th>
<th>Telephone no.:</th>
<th>File number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Consultation:</td>
<td>New Case: Yes No</td>
<td></td>
</tr>
<tr>
<td>Age (years):</td>
<td>Sex: M F</td>
<td></td>
</tr>
<tr>
<td>Residence:</td>
<td>Marital status: Single Married Divorced Widow</td>
<td></td>
</tr>
<tr>
<td>Children: no.</td>
<td>Age of youngest</td>
<td></td>
</tr>
<tr>
<td>Height of the patient in cm:</td>
<td>Weight of the patient in Kg:</td>
<td></td>
</tr>
<tr>
<td>Waist Circumference in cm:</td>
<td>Phototype (according to Fitzpatrick classification)</td>
<td></td>
</tr>
<tr>
<td>Age of onset of psoriasis:</td>
<td>Family history of psoriasis: yes no does not know</td>
<td></td>
</tr>
</tbody>
</table>

## Personal history

- Diabetes mellitus
- Gout
- Hypertension
- Hyperlipidemia
- Atopy
- IBD
- Renal insufficiency
- Gastro-duodenal ulcer
- Vitiligo
- Smoking:
- Skin cancer
- Viral hepatitis

## Location of psoriasis at onset:

- Upper extremities
- Scalp
- Lower extremities
- Genitalia
- Trunk
- Palms
- Face
- Soles
- Folds
- Nails
Psoriasis Questionnaire

Evolution:
- Continuous
- Flare-ups and complete remissions
- Flare-ups and incomplete remissions

Extension of the lesions during the worst episode:
- Limited (<10% body surface area)
- Moderately extensive (10-30% body surface area)
- Generalized (>30% body surface area)

Clinical aspect of the lesion during the worst episode:
- Erythematous plaques
- Erythrodermic
- Pustular

Provoking Factors:
- Stressful events
- Mechanical factors (Koebner phenomenon)
- Infectious disease
- Weight increase
- Change of season
- Medication intake

Effect of environmental factors:
Sun ± sea:
- Worsens
- Improves
- Clears
- No effect

Treatments received:
Yes  No
If Yes:
- Local treatments
- Systemic treatments (Methotrexate-Cyclosporine-Acitretin-PUVA)
- Physical treatments
- Alternative medicine

Efficiency of treatment:
Yes  no
Which was the most efficient:
Longest remission period:
<1 month  1-3 months  3-6 months  6-9 months  9-12 months  >1 year

Approximate cost of treatment per month:
Actual Situation of Psoriasis
1- Patient under treatment:
Yes  No
2- Location
- Upper extremities
- Lower extremities
- Scalp
- Face
- Genitalia
- Palms
- Soles
- Nails
# Psoriasis Questionnaire

**Clinical Type of psoriasis at presentation:**
- Psoriasis vulgaris
- Guttate psoriasis
- Pustular psoriasis
- Erythrodermic psoriasis
- Scalp psoriasis
- Nail psoriasis

**Symptoms:**
- Pruritus
  - Yes
  - No
  - If Yes:
    - Limited to plaques
    - on unaffected skin

**Rheumatological manifestations:**
- Yes
- No
- Oligoarthritis
- Polyarthritis

**Involvement of distal interphalangeal joint**
- Axial involvement (spondylitis and/or sacroiliitis)
- Arthritis mutilans
- Dactylitis
- Enthesopathy

**Clinical aspect of the actual episode:**
- Nummular plaques
- Large plaque
- Drops
- Mixed
- Erythrodermic
- Pustular
- Nail: Yes
- No

**PASI score:**
- Alteration of Quality of Life:
  - no impact
  - minimal side effects easily coped with
  - alteration of everyday life
  - alteration of appearance and socialization
  - major personal and social handicap

**Treatment the patient is receiving now:**
- Local
- Systemic
- Physical
- Others

**Echo abnormalities:**
- Yes
- No

**Lab. Abnormalities:**
- Yes
- No
- Lipid profile
- Liver function test
- Renal function tests
- CBC, ESR, HCV, HBV
Study population

Overall 1181 questionnaires were completed at university hospitals.

SPSS was performed on all patients except those presenting single episode of psoriasis (n=97 patients) and those with missing data or inaccurate history data (n=44 patients).

181 subjects were excluded from the typology development.

Some dermatologists reported erythroderma not only for total body area involvement but even for limited lesions. Thus erythroderma data were also excluded from the analysis.
Description of personal and family history among study cases

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>±SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>41.1</td>
<td>18.0</td>
<td>1.0</td>
<td>81.0</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>732</td>
<td>70.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>308</td>
<td>29.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Smoking</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>290</td>
<td>27.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>750</td>
<td>72.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Alcoholism</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>30</td>
<td>2.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1010</td>
<td>97.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Personal antecedents of atopy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>218</td>
<td>21.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>822</td>
<td>79.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Familial antecedents of psoriasis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>152</td>
<td>14.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>888</td>
<td>85.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Familial antecedents of psoriasis arthritis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>84</td>
<td>8.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>956</td>
<td>91.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Familial antecedents of atopy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>60</td>
<td>5.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>980</td>
<td>94.2%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Males represented the majority of cases (70.4%), smokers and alcoholics represented about 28% and 3% of cases respectively.
History & Disease Course

Clinical Course

Family History

- Psoriasis: 14
- Psoriatic Arthritis: 7.8
- Atopy: 5.7

Continous: 81%
Discontinous: 19%
Data

The mean age among study cases was 41.1 ± 18 ranging between 1-81 years.

Pruritus

Psoriatic Arthritis

52%

73%

Age of onset

- 50%
- 30%
- 20%
- < 30 years
- 30 - 49 years
- ≥ 50 years
Description of medical characteristics (comorbidities) among study cases

The table showed that HTN was the commonest co morbidity among cases (14.6%) while lipid disorder was the least frequent among cases (4%).

<table>
<thead>
<tr>
<th>Comorbidity</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lipid disorder</td>
<td>Yes</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>998</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>Yes</td>
<td>152</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>888</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Yes</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>944</td>
</tr>
<tr>
<td>Hepatic disease</td>
<td>Yes</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>978</td>
</tr>
</tbody>
</table>

![Bar chart showing the distribution of comorbidities among cases](chart)
Different Cases
Different Cases
Different Cases
Different Cases
Different Cases
Different Cases
Management of psoriasis with limited resources
Where do we stand

Weekly clinic

Follow up of patients

No Governmental funding

Non governmental funding
Charities, Pharmaceutical industry, NGOs

Generic treatment

Phototherapy

Difficulty in obtaining newer drugs
Challenges & gaps
Challenges and gaps

Severe social & economic burden of the disease.

Comorbidities.

Unmet needs facing the dermatologists with limited resources.

Lack of resources.

HCV.

Ministry of Health budgets.
HCV in Egypt 2008

DHS survey 2008, in collaboration with NCCVH

2008 Egypt Demographic Health Survey Results
Suggestion of a national strategy
Suggestion of a national Strategy

1. National Strategy including all health care sectors in Egypt.


3. Larger epidemiological studies to know the true size & impact of the problem.

4. Awareness program to all health care providers & primary health physicians.

5. Specialized referral centres.
Suggestion of a national Strategy

- Patients advocacy groups.
- Fill the research gaps.
- Management of Co-morbidities.
- Research and clinical trials in special population groups.
- Guidelines & treatment protocols implementing changes to current management practice.
Suggestion of a national Strategy

- Collaboration with international experts
- Modelling studies for cost-effective treatment.
- Media Campaigns.
- Long term research data so governments recognize psoriasis as a disabling disease needing early diagnosis & treatment.
- Involve stakeholders for support.
Conclusion

“Early management of psoriasis is more cost effective to avoid long term morbidity & complications.”
Conclusion

“Psoriasis is at once both a common and complex disease. Psoriasis usually does not take lives, but it does ruin them.”
Thank you

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