

A Red Scaly Rash

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TRIGGER

- Ali is a 50-year-old engineer who presented to Dr. Khalid with itching all over his body for the last few weeks. Recently he has noticed that there are red patches and scales like a fish over them. He is very concerned about this condition.

Discussion Questions

- ❑ Are there any difficult words you do not understand?
- ❑ List the key information about Ali
- ❑ Identify Ali's presenting problems.
- ❑ For each problem, generate a list of possible causes (hypotheses). Genetic predisposition, stress.
- ❑ What further information would you like to know from history to refine your hypotheses?



Adapted from: Available online www.Drsharma.ca

History

- Ali first noticed that the red patches first appeared on his scalp and then they extended to his trunk, going on to his elbows and knees. He has become more worried because his nails are becoming yellowish with spots and pits on them. He also has knee pain on both sides which started this winter.

PAST MEDICAL HISTORY

- No history of chronic illnesses, hospital admission or surgery.

ALLERGY AND MEDICATION

- He has no drug allergy. He was started a year back on beta blocker for his high blood pressure. He was also diagnosed with high cholesterol but did not take the medication he was given for it. He did not receive any treatment for his skin disease.

SMOKING AND ALCOHOL

- He occasionally smokes with his friends in parties. He does not drink.

Family History

- Ali has two younger brothers. They are all well and healthy. His mother is hypertensive and has a high cholesterol. His father died five years back and was also hypertensive. Ali remembers that his father had a similar skin condition.

Social history

- Ali is married with two sons. He works as a mechanical engineer in the local firm; his job is stressful and it sometimes requires him to work more than 12 hours in a day.

Discussion Questions:



- Are there words that you do not understand?
- Summarize key information that you have obtained from this problem.
- Identify patient's new problems. Provide hypotheses for each problem.
- What further information would you like to know through clinical examination?


Examination

- ✓ Vital signs are normal.
- ✓ Skin examination:



Adapted from: Available online:
http://www.riversideonline.com/health_reference/Arthritis/DS00476.cfm [Accessed: March 2011]

Describe the lesions

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- On examination there are well defined erythematous, scaly plaques affecting the scalp, trunk, both elbows and knees. On close examination some lesions showed pin point bleeding.

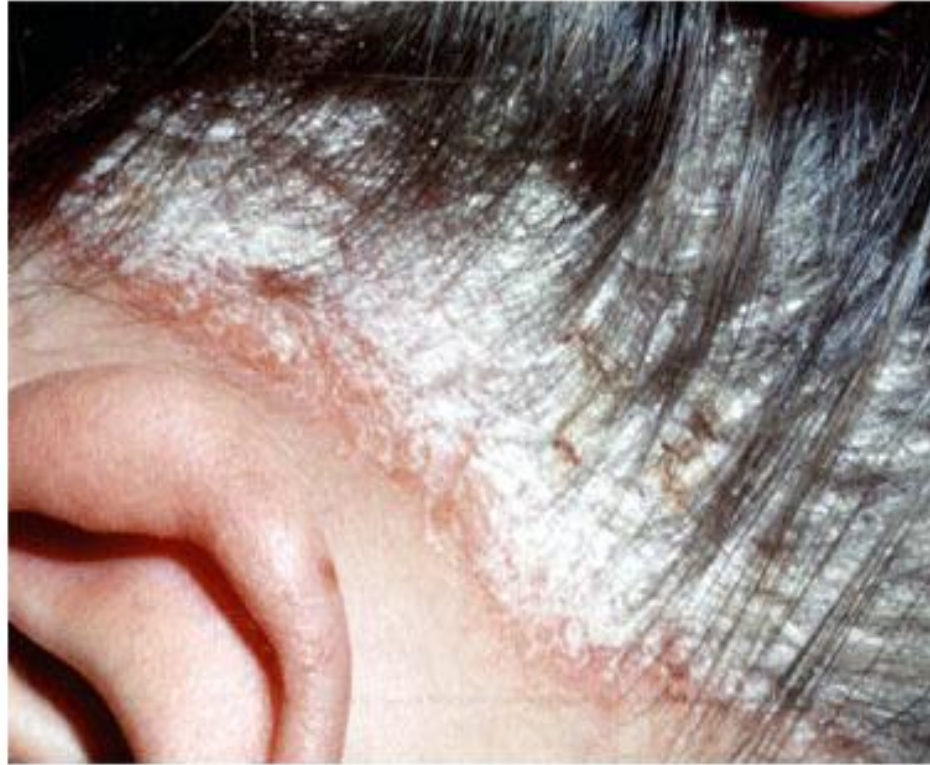


Adapted from: Available online www.maldveshopitality.com

Adapted from: Available Online:
http://www.psorialess.com/Skins_Disorders_Questions_and_Answers.htm [Accessed March 2011]

Describe the lesions

- The skin over the hands looks normal. However, his nails show multiple depressions and yellowish brown spots and there is separation of the nail plate from nail bed.



Adapted from: Available online [www.skin care guide.com](http://www.skin-care-guide.com)

Describe the lesions

Case Progress:

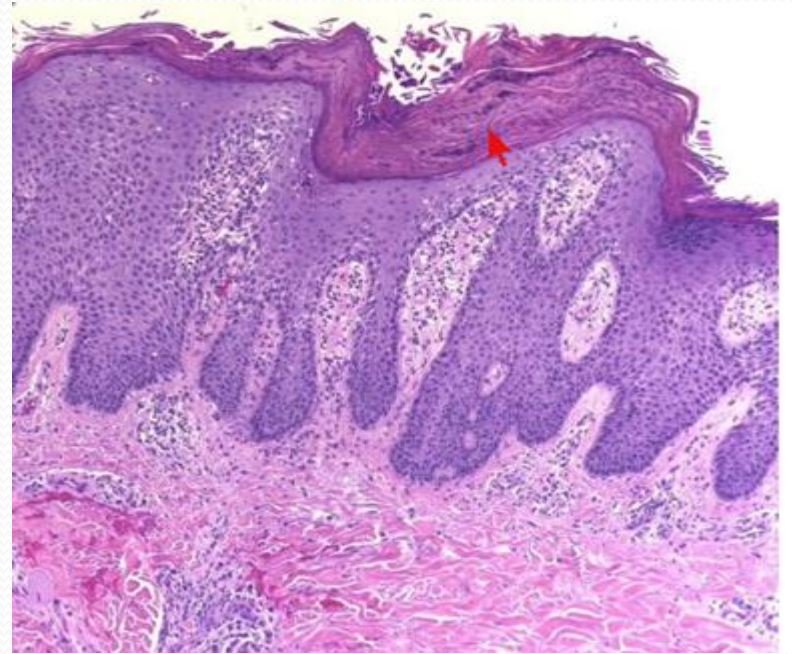
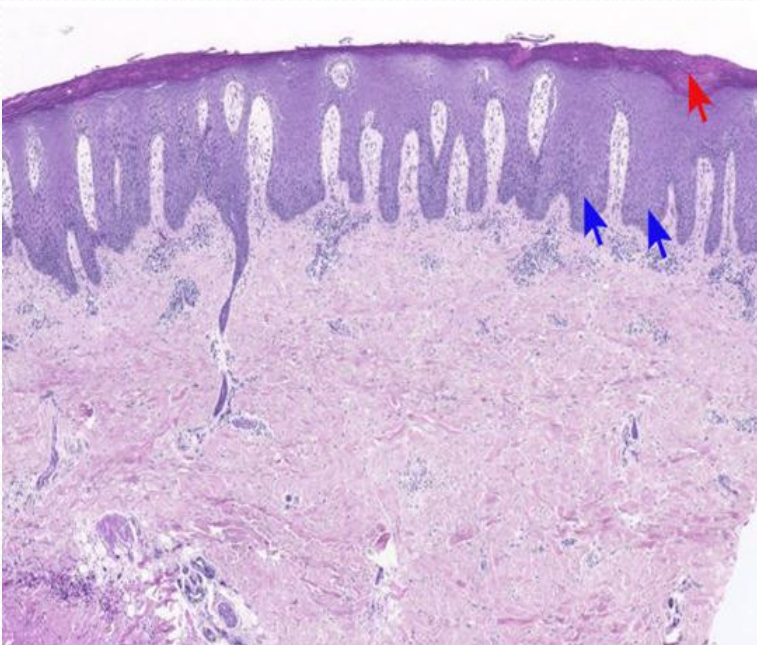
After the examination, Dr Khalid discussed Ali's condition. Dr. Khalid explained to Ali that he has a condition called Psoriasis. He explained that the genetic basis for the condition is not known, however there is a familial tendency. Back to Ali's concern, Dr. Khalid confirmed that this skin condition is not contagious and his wife and kids are safe from him.

What investigations need to be requested?


- Ali is asked to undergo the following investigations prior to starting the treatment, i.e. complete blood count, urea and electrolytes, liver function test, lipid profile, hepatitis B and C screening. A skin biopsy was performed because Ali wanted to be sure of the diagnosis .He is also advised to see his cardiologist because the medication for his high blood pressure may be the trigger for his psoriasis.

Total Bilirubin	9	umol/L	3 - 17
Total Protein	77.0		60 - 80
Albumin	37.0	g/L	30 - 50
Alkaline Phosphatase	105.0	U/L	50 -136
Alanine Aminotransferase	38.0	U/L	20 - 65
Aspartate Aminotransferase	17.0	U/L	10 - 31
Triglycerides	1.2	mmol/L	0.4 - 1.48
Cholestrol	5.6 H	mmol/L	3.2 - 5.2
WBC	5.0	x 10 .e 9/L	4 - 11
RBC	4.39	x 10.e 12/L	4.2 - 5.5
HGB	131	g/L	120 -160
HCT	37.7	%	37 -47
MCV	85.9	f l	80 - 94
MCH	29.8	pg	27 - 32
MCHC	347	g/L	320 - 360
RDW	14.3	%	11.5 - 14.5
PLT	201	x10.e 9/L	140 - 450
MPV	9.4	fl	7.2 - 11.1
%NEUT	41.1	%	40 - 75
%LYMP	42.4	%	20 - 45
%MONON	8	%	3 - 9
%EOS	2	%	0 - 6
%BASO	0.5	%	0 - 1
#NEUT	2.0	X 10.e9/L	2 - 7.5
#LYMP	2.1	X 10.e9/L	1 - 5
#MONO	0.5	X 10.e9/L	0.2 - 0.8
#EOS	0.3	X 10.e9/L	0.0 - 0.8
ESR	39mm/min		5-10mm/min
Urea	5.6	mmol/L	2.5 - 6.4
Creat	61	U mol/L	53 -106
Sodium	138	mmol/L	135 -145
Pottasium	49	mmol/L	3.5 - 5.1
Chloride	104	mmol/L	98-107
Carbon dioxide	26.9	mmol/L	22-29
Calcium	2.25	mm/L	2.1-2.55
Inorganic Phosphorus	1.08	mmol/L	0.87 - 1.45
Corrected calcium	2.3	mm/L	2.1 -2.55


Hep B surface antigen	Negative
Anti - Hep B Surface	Negative
Anti - Hep B core IgG	Negative
Hepatitis C antigen	Negative



Adapted from: Available online www.missinglink.ucsf.edu

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- The result of skin biopsy showed parakeratosis, hyperkeratosis and regular elongation of rete ridges (regular psoriasiform hyperplasia as shown in the slide).

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- **How would you treat this patient?**

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- Ali comes back two days later and is given a stat dose of methotrexate 5 mg per oral. Dr Khalid confirms that all his investigations are normal. He is advised to do his complete blood count and liver function tests a week later, a day prior to his next appointment.

- Ali is started on 15 mg of methotrexate taken once every week which is to be taken with food or at bed time. He is also given 1mg of folic acid that he will take daily except for the day on which he is taking methotrexate and antihistamine for itching. Ali is also given calcipotriol solution which he has to apply on his nails and scalp twice everyday. Dr. Khalid urges Ali to use moisturizers daily especially after bathing and to cut his nails very short. Ali is advised to repeat his full blood count and liver function tests every two weeks for the next three months. He is asked to come back immediately if he develops a cough.

Summary

- Ali developed psoriasis that was triggered by Beta blocker as treatment for his hypertension. The skin condition was associated with joint manifestation. Methotrexate is considered one of the treatment modalities for severe psoriasis which is also suitable for psoriatic arthritis.

What are the side effect of Methotrexate?



➤ **What other treatments may be used in the management of this patient?**

Тиакичои!