

Case- 9 : Arthritis: Student Handout

Part 1, History:

Maryam Al Banan is a 45 year old school principal in Riyadh. She has come to Dr. Fatima, complaining of pain and stiffness of joints in both her hands. It started first time while she was typing her Master's project about 2 months back. Initially she thought that the pain was due to her typing. However she noticed that the pain continued even after she stopped typing.

She also noticed that her fingers feel stiff when she wakes up in the morning and get better later in the day. She also has pain in the small joints of her hand. Hence she occasionally takes ibuprofen to relieve the pain in her hands.

Lately her job has become very demanding and she feels very lethargic and tired. She sometimes has a stiff neck and shoulder pain, especially towards the end of the day. She has no associated fever, nausea, vomiting, dry eyes or any other complaint. No history of injury to her hands.

Past medical history

No past medical history or any hospital admissions.

Allergy and Medication

Sometimes takes ibuprofen to relieve pain in her fingers.

Family history

Her mother was diagnosed with rheumatoid arthritis and died 2 years back. He father is alive and healthy. She has three sisters all alive and healthy.

Alcohol and smoking

No history of smoking or alcohol consumption.

Social history

Maryam became the school principal one year back. She works very hard in her school and has a very busy family life too with a husband and two small daughters.

Part 2, Clinical examination:

Maryam 161 cm tall and her body weight is 60 Kg.

Her vitals are as follows:

Pulse: 76 beats/min

Blood pressure: 120/85

Respiratory rate: 16 breaths/min

Temperature: 37.2 °C

Hands examination:

No visible finings on inspection, no swelling, scar mark or deformity.

Normal examination of the hands

Neurological examination of the upper limbs is normal. All peripheral pulses are present

Shoulder and Neck Examination:

Normal

Chest and Heart Examination:

Normal chest expansion and normal breath sounds. Normal heart sounds.

Abdominal examination:

Normal

Part 3, Investigations:

The doctor advised Maryam to undergo the following investigations and the results are as follows:

Complete Blood Count (CBC)

Blood Test	Maryam	Normal range
Hemoglobin	9.5 g/100ml	11.5-13.5 g/100ml
White blood cell count	8,000 mm ³	5,000 -10,000 mm ³
PCV	42 %	37-47%
MCV	86 fl	80-96 fl
MCHC	323 g/L	300-350 g/L
Platelet count	242,000 mm ³	160,000-500,000 mm ³

Erythrocyte Sedimentation Rate (ESR)

ESR: 5mm/hr

C - reactive protein (CRP)

Normal

Rheumatoid Factor Assay

Positive

Rheumatoid factor	Normal range	Maryam's result
Titers	1:20 to 1:80	1:120

Learning objectives:

At the end of the session the student should be able to;

1. Enlist the differential diagnosis of arthritis (as experienced by the patient and keeping in mind the diagnostic criteria) and identify the causes under most likely & less likely categories
2. Highlight the abnormal findings in the history and clinical examination.
3. Name the investigations required.
4. Discuss the management aims and options in treating a patient with rheumatoid arthritis.
5. Describe the management plan (management goals and options) of rheumatoid arthritis and discuss the mechanism of action for the drugs in the management.

6. Discuss the non-drug advices the doctor has to give to the patient.
7. Explain the complications of arthritis in general and rheumatoid arthritis.
8. Discuss the role genetics in such a diagnosis.
9. Highlight the side-effects and contraindications of the drugs used in Maryam's treatment.

Instruction to the students:

Please read the case carefully, individually or in the group before you are coming to the "Case based learning" session. Look at the objectives and try to fulfill these objectives. Prepare for the case well by referring to some suggested reading list. The tutor in CBL session will ask you to go through the case and answer some of his stimulating questions to ensure that you have achieved the objectives

Suggested Reading:

- Clinical Medicine: Kumar P and Clark M. Clinical Medicine. 7th ed. Edinburgh: WB Saunders, 2009.
- Clinical examination: Nicholas J. Talley and Simon O'Connor. Clinical examination: A Systematic Guide to Physical Diagnosis. 6th Revised edition, 2009

Important Information to students:

- The students are expected to read the case and related question carefully, before they come case-based discussion session.
- Every student must bring the following book to the session:
Clinical methods by McLeod