**Case-Rheumatoid Arthritis**

**Chief Complaint**

“I have pain in all of my joints, a swollen left knee, and stiffness every morning, and stomach discomfort about half an hour after taking the tablets. My medication is not working properly and don’t notice any benefit from it. ”

**History of Present Illness:**

Mrs PJ is a 67-year-old woman diagnosed of rheumatoid arthritis with generalized arthralgia’s, a swollen left knee, and morning stiffness. These symptoms have been occurring with increasing severity for the past several weeks. She collected her first prescription for sulfasalazine two weeks ago.

**PMH:** RA × 6 years

**FH**

Father died from complications after a traumatic fall at age 65. Mother died of hip fracture and pneumonia at age 78. No siblings.

**SH**

Housewife; married for 42 years; has two grown children with no known medical problems. Denies alcohol or tobacco use. Volunteers in the community extensively, but has been doing less in the past 2 months.

**Med**

* Salazopyrin EN 500 mg twice a day
* Diclofenac 50 mg three times a day
* Paracetamol 1 g up to four times a day when required.

Mrs. PJ also mentions that she has to go to her practice nurse for some blood tests but she’s not sure why. The BNF recommends that liver function tests, full blood counts and renal function tests are carried out regularly.

Four months later, Mrs. PJ returns to your pharmacy. She says that she still has not had much benefit from her sulfasalazine despite the fact that her dose has been titrated to an appropriate level.

**ROS**

Swelling in left knee; decreased ROM in hands; morning stiffness every day for about 3 hours; fatigue experienced daily during afternoon hours.

**Physical Examination**

*Gen:* Pleasant, middle-aged white woman in moderate distress because ofpain and swelling in left knee.

*VS:* BP 138/80, P 82, RR 14, T 37.1°C; Wt 65.3 kg, Ht 5'6''

*Chest:* CTA

*CV:* RRR; normal S1, S2;

*Abd:* Soft, (+) BS

*MS/Ext*

Hands: mild RA changes; swelling of the 3rd, 4th, and 5th PIP Proximal interphalangeal joints bilaterally; pain in the 3rd and 4th **MCP** Metacarpophalangeal joints on left; deformity of the 3rd and 4th digits bilaterally; ulnar deviation bilaterally; decreased grip strength, L > R (patient is left-handed)

Wrists: decreased ROM

Elbows: good ROM; slight permanent contracture on right; fixed nodule at pressure point

Shoulders: decreased ROM (especially abduction) bilaterally

Hips: decreased ROM on right; atrophy of quadriceps, L > R

Knees: pain bilaterally; decreased ROM on left; effusion/edema on left

Feet: no edema; full plantar flexion and dorsiflexion; 3+ pedal pulses

*Hand X-Ray:* Erosion of MCP and PIP joints bilaterally; measurable joint spacenarrowing from previous x-ray 6 months ago.

*Synovial Fluid:* From left knee; white cells 23.0 × 103/mm3, turbid in appearance

**Lab**

Na 135 mEq/L (135-145 mEq/L) Hgb 10.0 g/dL (13.8–17.2 g/dL)

K 4.1 mEq/L (3.3–4.9 mEq/L) Hct 31% (40.7–50.3%)

WBC 13.0 × 103/mm3(4–10 × 103/mm3) Plt 356 × 103/mm3 (140-440 ×103/μL)

BUN 12 mg/dL (8–25 mg/dL) SCr 0.8 mg/dL (0.7–1.3 mg/dL)

Glu 103 mg/dL (< 200 mg/dL) Ca 9.1 mg/dL (8.6–10.3 mg/dL)

AST 15 IU/L (11–47 IU/L) ALT 12 IU/L (7–53 IU/L)

*Fasting Lipid Profile:*

**T. chol 219 mg/dL (<200 mg/dL)** LDL 106 mg/dL (<130 mg/dL)

HDL 50 mg/dL (>45 mg/dL) TG 150 mg/dL (<160 mg/dL)

**Questions:**

1. What are the goals of the therapy when treating rheumatoid arthritis?
2. What is RA? Write the major risk factors for rheumatoid arthritis.
3. What are the lab findings which represent the RA condition?
4. List the patients’ drug therapy problems? What suggestions and alternatives will help Mrs. PJ with her upset stomach?
5. What additional information is needed to assess the patient?
6. How is the dose of sulfasalazine normally initiated and titrated? Why is the dose increased gradually?
7. List the alternative treatments that may be used in the management of rheumatoid arthritis with their dose and dosing schedule and briefly discuss when an alternative treatment would be tried.
8. What information should be provided to the patient to enhance adherence, ensure successful therapy, and minimize adverse effects?
9. Mention two non-steroid anti-inflammatory drugs and their Dose, frequency and side effects.
10. What are the monitoring parameters for anti-rheumatic drugs?
11. Write your evaluation of therapeutic outcome and how you will interpret the outcomes?
12. What is the role of corticosteroids in RA?
13. What are the Non-Pharmacological therapy for RA?
14. How you will improve the medication adherence to this patient?
15. Summarize your discussion and set the priority for counselling points.