

CLINICAL CASES

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Case: Ms. FM

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Case: Ms. FM


- Ms. FM is a 37-year-old school teacher
 - Under your care for 10 years
 - Unremarkable past history
 - Was in minor car accident 4 months ago
 - Has had progressive generalized pain and fatigue since accident
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Discussion Questions



**WHAT ARE SOME POSSIBLE CAUSES
OF HER PAIN?
WHAT ELSE WOULD YOU LIKE TO KNOW**

Ms. FM: Symptoms

- Pain:
 - Felt all over body, in muscles and joint
 - Worsens with exercise
 - No relief with acetaminophen
 - Fatigue:
 - Complains of feeling tired most days
 - Says she has trouble getting to sleep sometimes
 - Mood:
 - Flat affect
- 

Discussion Question



**WHAT WOULD YOU CONSIDER
WHEN EVALUATING HER SYMPTOMS?**

Ms. FM: Physical Exam

- Blood pressure: 130/82 mmHg
- BMI: 24.9 kg/m²
- Cardiovascular exam normal
- Lungs clear
- No joint swelling or erythema
- Normal range of motion in all joints
- No skin rashes
- 8/18 tender points positive

Discussion Question

**WHAT WOULD BE YOUR
DIAGNOSIS?**


Ms. FM

- Clinical exam confirms diagnosis of fibromyalgia

Discussion Questions

WHAT WOULD YOU TELL MS. FM?
WHAT WOULD BE YOUR TREATMENT PLAN?

Ms. FM: Treatment Plan

- First-line pharmacotherapy
 - Referral for cognitive behavioral therapy
 - Counseling regarding improved sleep hygiene and healthy diet
 - Exercise may be added gradually after pain has been relieved
- 

Discussion Questions



WHAT WOULD YOU TELL HER?

Case: Mrs. CWP

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Case: Mrs. CWP

- 55-year-old housewife and mother of 2
- 20-year history of aching in neck, shoulders and knees
- Also complains of:
 - Fatigue
 - Trouble getting to sleep
 - Difficulty concentration
 - Intermittent bouts of depression
- Current medications: muscle relaxant and NSAID, as needed
- Has been prescribed TCAs and SSRIs in past for her depression

Discussion Questions


A large, irregular yellow watercolor splash is centered on the slide, serving as a background for the first two discussion questions. It has a textured, painterly appearance with varying shades of yellow and some darker spots.

**WHAT ARE SOME POSSIBLE CAUSES
OF HER PAIN?**

WHAT ELSE WOULD YOU LIKE TO KNOW

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Mrs. CWP: Physical Examination and Review of Systems

- In past year:
 - Gained 2 kg
 - Less frequent menstrual periods (q6w)
 - Blood pressure: 130/86 mmHg
 - Physical exam normal
 - Pain experienced at 16 of 18 tender points
- 

Discussion Question



**WOULD YOU CONDUCT ANY IMAGING
STUDIES OR LABORATORY TESTS?**

Mrs. CWP: Laboratory Results


- Mammogram: normal
- CBC: within normal limits
- Liver function tests: within normal limits
- FSH, LH, estradiol, total estrogen: perimenopause profile
- TSH, free T4: within normal limits
- CPK: within normal limits
- ESR: within normal limits
- Blood calcium: within normal limits
- Vitamin D: within normal limits

Discussion Question



WHAT WOULD BE YOUR DIAGNOSIS?

Mrs. CWP: Diagnosis

- Fibromyalgia
 - Depression
 - Perimenopause
 - Borderline hypertension
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Discussion Questions

**WHAT WOULD YOU TELL
MRS. CWP?
WHAT WOULD BE YOUR
TREATMENT PLAN?**

Mrs. CWP: Treatment Plan

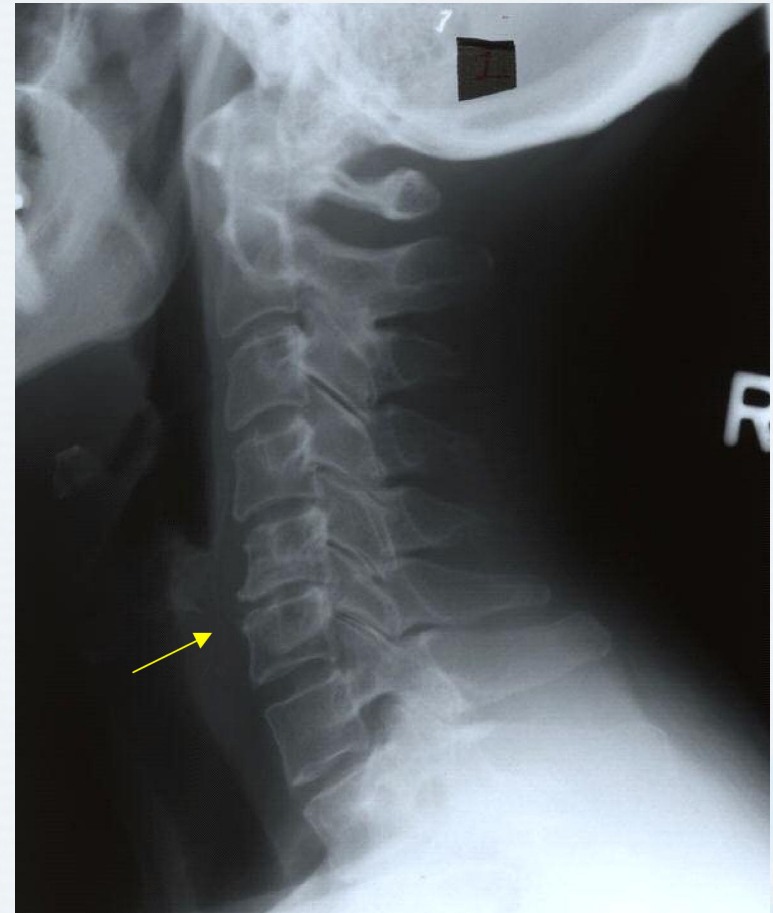
- Fibromyalgia and depression:
 - NSAID discontinued
 - $\alpha 2\delta$ ligand or SNRI initiated
- Perimenopause:
 - Low-dose birth control pills added for menopause symptoms
- Borderline hypertension:
 - Diet and weight loss recommendations
 - Follow-up and monitoring
 - Exercise may be started gradually after pain has been relieved

Case: Mrs. MP


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Mrs. MP: Case Presentation

- 53-year-old female teacher who was injured 3 months ago in an automobile accident
 - She was rear ended by a teenage driver who was driving while intoxicated
 - She suffered an immediate whip lash injury with marked pain and stiffness in the neck and right arm
- X-ray of C-spine showed C5–6 disc space narrowing
- Menopausal in the last year
- Migraine headaches controlled with sumatriptan 100 mg prn




Discussion Questions



**WHAT ELSE WOULD YOU LIKE
TO KNOW?**

Mrs. MP: Patient History

- Patient was initially treated by her internist with naproxen and cyclobenzaprine for pain and muscle spasm, and referred for physical therapy
 - She initially had localized pain in the neck, and over the last month, she developed overwhelming generalized pain and fatigue
 - She has been missing days from work, is not sleeping well, and is becoming depressed
 - Review of physical therapy notes confirm an initial whiplash injury, and then the development of generalized myofascial pain
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Mrs. MP: Physical Exam

- Blood pressure: 102/60 mmHg
- Weight: 72 hg
- Height: 168 cm
- Pain VAS: 8/10
- General impression:
 - Anxious woman
 - Uncomfortable with generalized pain
 - Physically deconditioned
 - Poor posture with anterior head position
 - Bilateral temporomandibular joint disorder
- 18/18 tender points; 3/4 in intensity
- Tight trapezius muscles
- Decreased range of motion in C-spine
- Hands and wrists:
 - Normal range of motion
 - No swelling
 - Normal grip strength
- Marked myofascial pain in the right upper arm
- Diffuse myofascial pain in the paraspinal muscles

Discussion Question


**WOULD YOU CONDUCT ANY
IMAGING STUDIES OR
LABORATORY TESTS?**

Mrs. MP: Imaging and Test Results

- Cervical spine MRI: degenerative C5–6 disc disease with moderate disc bulge and neural foraminal impingement of spinal nerve C6
- All labs (CBC, CMP, sedimentation rate, CRP, T4, TSH, magnesium, iron, TIBC, vitamin D, B12) were normal




Mrs. MP: Key Points to Consider

- Iron levels are normal
 - No abnormality shown with evoked potential and EMG
 - Opinion of physical medicine and osteopath
 - Daily use of anti-inflammatory with no result
 - Aggravation of the fatigue
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Discussion Question

WHAT WOULD BE YOUR DIAGNOSIS?

Mrs. MP: Potential Diagnoses


- Fibromyalgia
 - Myofascial pain syndrome
 - Cervical disc disease
 - Migraine headaches
 - Sleep disturbance
 - Reactive depression
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Discussion Questions



**WHAT WOULD BE YOUR
TREATMENT PLAN?**

Mrs. MP: Treatment

- Patient responded to a month medical leave for aggressive physical therapy with a therapist skilled in treating fibromyalgia, along with temporomandibular joint splints and warm water aquatic exercises
 - She was treated with increasing doses of an $\alpha 2\delta$ ligand, a sleeping pill and a muscle relaxant, along with tramadol/acetaminophen for breakthrough pain
 - She was able to return to work an orthopedic chair with adjustable arms
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Case: Mrs. LBP

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Mrs. LBP: Case Presentation

- 56-year-old, married, teacher at the college
- History of low back pain over the last 3 years
 - Pain intensity is 5–6 on VAS
 - She describes her pain as tightness in her lower back region with some radiation into the left buttock area
 - Pain is greater when she is sitting, less when moving
- She has not been working during last year because of pain; she stays at home
- Poor mood, poor appetite, poor sleep
- She says, “Nobody can help me. I probably have a dangerous disease of the spine.”

Discussion Question



WHAT ELSE WOULD YOU LIKE TO KNOW?

Mrs. LBP: Previous Treatments

Pharmacotherapy

- NSAIDs
- Acetaminophen
- Lidocaine plasters
- Gabapentin
- Pregabalin

Non-pharmacological Therapy

- Massage
- Manual therapy
- Acupuncture
- Physiotherapy

Although treatments were effective initially (3 years ago), they no longer work to relieve Mrs. LBP's pain.

Discussion Question



**WHAT WOULD YOU LOOK FOR ON THE
PHYSICAL EXAM?**

**WOULD YOU ORDER ANY IMAGING OR
LABORATORY TESTS?**

Mrs. LBP: Physical Examination and Imaging Results


- No sensory deficit
- No weakness
- Reflexes are normal
- Negative straight leg raise test
- MRI: small protrusions at L4–L5, L5–S1

Discussion Question




**WHAT TREATMENT(S) WOULD YOU
RECOMMEND?**


Mrs. LBP: Treatment Plan

- Amitriptyline 12.5 mg at bedtime for 2 weeks, then increasing to 25 mg at bedtime
 - Light exercises and stretching every day
 - Walking 45 min every other day
 - Social activity (cinema, theatre, meeting friends)
 - It was explained to Mrs. LBP's husband that his support is very important (walking together, social activity)
 - Cognitive behavioral therapy
- 


Mrs. LBP: After 1 Month

- She returns with a little bit less pain, but is still not satisfied with the result
 - Cognitive behavioral therapy was continued
 - Walking every day 45–60 minutes
 - Swimming twice a week
 - Amitriptyline 25 mg at bedtime
- 

Mrs. LBP: After 2 Months

- Pain has improved, but she still “feels the pain”
 - Cognitive behavioral therapy was continued
 - Meditation and relaxation sessions were advised
 - Return to work was advised
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Mrs. LBP: After 6 Months

- Mrs. LBP has complete pain relief
 - She has returned to full time work
 - She has become more socially active (found a new, interesting job)
 - She was satisfied with the treatment and realized there was no dangerous disease in her spine
- 

Why did this treatment approach help Mrs. LBP?


- Amitriptyline
- Light exercises and stretching
- Cognitive behavioral therapy
- Walking 45–60 minutes every day, swimming
- Social activity (cinema, theatre, meet friends)
- Support from husband
- Return to work in a new, more interesting job
- Meditation and relaxation

All of these measures may close the “pain gate” and inhibit pain.

Case Template

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Patient Profile

- Gender: **Male/female**
 - Age: **#** years
 - Occupation: *Enter occupation*
 - Current symptoms: *Describe current symptoms*
- 

Medical History

Comorbidities

- *List comorbidities*

Measurements

- BMI: # kg/m²
- BP: #/# mmHg
- *List other notable results of physical examination and laboratory tests*

Social and Work History

- *Describe any relevant social and/or work history*

Current medications

- *List current medications*


Discussion Questions

**BASED ON THE CASE PRESENTATION,
WHAT WOULD YOU CONSIDER IN YOUR
DIFFERENTIAL DIAGNOSIS?**

**WHAT FURTHER HISTORY WOULD YOU
LIKE TO KNOW?**

**WHAT TESTS OR EXAMINATIONS
WOULD YOU CONDUCT?**

Pain History

- Duration: *When did pain begin?*
 - Frequency: *How frequent is pain?*
 - Quality: *List descriptors of pain*
 - Intensity: *Using VAS or other tool*
 - Distribution and location of pain: *Where does it hurt?*
 - Extent of interference with daily activities: *How does pain affect function?*
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Clinical Examination

- *List results of clinical examination*

Results of Further Tests and Examinations

- *List test results, if applicable*

Discussion Question



**WHAT WOULD BE YOUR DIAGNOSIS
FOR THIS PATIENT?**

Diagnosis

- *Describe diagnosis*

Discussion Question

**WHAT TREATMENT STRATEGY
WOULD YOU RECOMMEND?**

Treatment Plan

- *List both pharmacological and non-pharmacological components of management strategy*

Follow-up and Response to Treatment(s)

- *Describe pain, function, adverse effects, etc., at next visit*

Case Template: Discussion Question

- Would you make any changes to therapy or conduct further investigations?

Other Investigations

- *List results of further investigations, if applicable*

Changes to Treatment

- *Outline changes to therapy, if applicable*

Conclusion

- *Describe pain, function, adverse effects, etc., at next visit*

What If Scenarios

- How would your diagnosis/treatment strategy change if...
 - *List what if scenarios*