# Case presentation and topic discussion

Dr Surjya Ghosh GP ST2
Rheumatology teaching group
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- 43 yr old Caucasian female
- 6 months ago involved in RTA rear ended, no LOC.
- Developed severe neck and lower back pain
  - Initially diagnosed with cervical and lumbar strain/sprain.
- Pain persistent despite analgesics and muscle relaxants
  - Xrays and MRI cervical and lumbar disc disease, no neuroforaminal encroachment.

- Physiotherapy for several weeks with minimal benefit.
- 2<sup>nd</sup> month of continued pain started to affect her sleep
  - Able to fall asleep.
  - Frequent awakenings due to pain and woke up tired in the morning.

- 2 months post RTA, pain starting to generalise above and below the waist.
- FH: depression in mother and sister. No personal hx of depression.
- Unable to return to work.
- Latest examination
  - →ROM neck and lower back
  - Some sciatic notch and nerve tenderness.

She has normal blood tests.

Tender point exam = 18/18, with negative control points.

What is your differential diagnosis?

## Fibromyalgia

- Aetiology
- Epidemiology
- Pathogenesis
- Clinical features
- Diagnostic criteria
- Diagnostic process
- Differential diagnosis
- Management
- Prognosis

### Aetiology

- Exact aetiology is unknown
- Altered central pain processing
- Dysfunction of the hypothalamic-pituitary-adrenal axis
- Sleep disturbances
- Genetic factors
- Immune system
- Psychiatric conditions
- Trigger factors
- Research deficiency in Serotonin and increase in substance P

## **Epidemiology**

- Prevalence in developed countries 2-7%.
- More common than Rheumatoid arthritis
- More common in females.

### Pathogenesis

- Multiple factors.
- Sleep disturbance
  - Loss of non-REM sleep.
- Reduced aerobic fitness.
- Viral cause not supported by any evidence

#### Clinical features

- Pain
- Fatigue
- Non-restorative sleep
- Cognitive dysfunction
- Mood disorder
- Pain related somatic symptoms
- Non-pain related symptoms

#### Diagnostic criteria

- ACR guidelines 1990.
- ACR guidelines 2010.
  - 31 point questionnaire
  - Does not require tender-point count
  - Wide spread pain index (WPI)
  - System severity score (SS)
- 1. WPI  $\geq$  7 and SS  $\geq$  5 or WPI 3-6 and SS  $\geq$  9
- 2. Symptoms present at similar level ≥ 3 months.
- 3. No disorder that would otherwise explain the pain.

## Diagnostic process

- Difficult due to vague and generalized symptoms
- GP should try and establish diagnosis ASAP.
- Educate link between poor sleep, tiredness and pain.
- Avoid lengthy, costly and unnecessary investigations.
- Not a diagnosis of exclusion.
- Physical and mental health, with attention to psychosocial context
- Physical examination in all patients.
- Limited investigations.

## Differential diagnosis

- Hypothyroidism
- Chronic fatigue syndrome
- SLE
- Inflammatory myopathy
- Hyperparathyroidism
- Polymyalgia Rheumatica
- Osteomalacia
- Psychiatric conditions
- Sleep disorders

#### Management

- No cure at present.
- Aim to improve symptoms and maintaining optimal function.
- Multimodal and patient-tailored approach is best.
- Identify specific goals.
- Non-pharmacological:
  - Physical therapies active and passive.
  - Acupuncture
  - Psychological therapies
- Pharmacological
  - Analgesia
  - Antidepressants
  - Anticonvulsants

#### Prognosis

Poor

20% symptom free at 5 years.

Treatment may help with coping strategies.