



# FIBROMYALGIA

ANNE WINKLER MD PHD

MO ACP MEETING SEPT 2016

# DEFINITION

- ▶ CHRONIC MUSCULOSKELETAL DISORDER CHARACTERIZED BY GENERALIZED PAIN AND TENDERNESS AT SPECIFIC ANATOMIC SITES.
- ▶ CRITERIA DEFINED IN 1990 BY ACR AND UPDATED 2010 (STILL CONTROVERSIAL)
- ▶ CONCEPT OF FIBROMYALGIA ALSO STILL CONTROVERSIAL

# PATHOGENESIS

- ▶ UNCLEAR
- ▶ MAY HAVE GENETIC BASIS BUT STUDIES CANNOT SEPARATE LEARNED BEHAVIOR VERSUS TRUE GENETIC INHERITANCE
- ▶ MORE POPULAR AT PRESENT IS NEUROLOGIC THEORY: ABNORMAL SIGNALING OF C FIBERS THROUGH DORSAL HORN UPWARD TO PAIN-PROCESSING CENTERS OF THE BRAIN
- ▶ PERIPHERAL FACTORS MAY PLAY A ROLE - DIET, PHYSICAL ACTIVITY, MENTAL HEALTH ISSUES

# EPIDEMIOLOGY

- ▶ PREFERENTIALLY AFFECTS WOMEN IN MIDDLE AGE
- ▶ HOWEVER CAN BE SEEN IN CHILDREN AND MEN AS WELL
- ▶ MORE COMMON IN MIDDLE AND UPPER SOCIOECONOMIC GROUPS BUT THIS MAY REFLECT ACCESS TO HEALTH CARE
- ▶ INCIDENCE ESTIMATED TO BE 2-4% OF POPULATION AND 20% OF NEW PATIENTS REFERRED TO RHEUMATOLOGY
- ▶ ASSOCIATION WITH IRRITABLE BOWEL SYNDROME, CHRONIC HEADACHES

# SYMPTOMS

- ▶ GENERALIZED ACHES AND PAINS – pain in all four quadrants
- ▶ FATIGUE
- ▶ AM STIFFNESS
- ▶ SLEEP ISSUES
- ▶ SENSATION OF SWELLING IN EXTREMITIES
- ▶ PARESHESIAS

# AGGRAVATING FACTORS

- ▶ COLD/HUMID WEATHER
- ▶ NON RESTORATIVE SLEEP
- ▶ EXCESSIVE PHYSICAL ACTIVITY
- ▶ PHYSICAL INACTIVITY
- ▶ STRESS

# RELIEVING FACTORS

- ▶ WARM/DRY WEATHER
- ▶ HOT SHOWER/BATH
- ▶ RESTFUL SLEEP
- ▶ MODERATE ACTIVITY
- ▶ STRETCHING EXERCISES
- ▶ MASSAGE

# EXAMINATION

- ▶ NORMAL JOINT EXAM
- ▶ NORMAL NEUROLOGIC EXAM
- ▶ NORMAL MUSCLE EXAM
  
- ▶ PRESENCE OF TENDER POINTS AND ABSENCE OF CONTROL POINTS





PFS: SITES OF TENDER POINTS

# CONTROL POINTS

- ▶ MID FOREHEAD
- ▶ THUMBNAILS
- ▶ MID FOREARM
- ▶ MID THIGH

# LABORATORY STUDIES

- ▶ CONSIDER CHECKING IF SYMPTOMS SUGGEST POSSIBLE OTHER DIAGNOSIS
- ▶ HLA B 27
- ▶ TSH
- ▶ VITAMIN D LEVELS
- ▶ BONE SCAN
- ▶ RF/CCP
- ▶ ANA
- ▶ XRAYS/MRI

# LABORATORY TEST FOR FIBRO?

- ▶ FM/d
  - ▶ REPORTEDLY TESTS CELL MARKERS ON SPECIFIC CELL MEDIATED IMMUNE CELLS SPECIFIC FOR PATIENTS WITH FIBROMYALGIA
  - ▶ DONE IN PATIENTS WITH SLE, RA, FIBROMYALGIA AND REPORTEDLY ACCURATELY IDENTIFIED ONLY FIBROMYALGIA PATIENTS
  - ▶ SCORES ABOVE 51 INDICATE ACTIVE FIBROMYALGIA

# TREATMENT

- ▶ FIRST, MAKE SURE YOUR DIAGNOSIS IS ACCURATE/CORRECT
- ▶ GOOD HISTORY AND PE
- ▶ LAB IF NEEDED

# EDUCATION

- ▶ EXPLAIN DIAGNOSIS – ABNORMAL SIGNAL OF PAIN, NOT SOME INJURY
- ▶ EXPLAIN IMPORTANCE OF LIFESTYLE HABITS IN MANAGING SYMPTOMS
- ▶ EXPLAIN LACK OF DISABILITY – STUDIES SHOW WORSENING OF SYMPTOMS WHEN PATIENTS STOP WORKING

# NUTRITION

- ▶ EAT AT LEAST 3 MEALS/ DAY INCLUDING PROTEIN IN EACH MEAL
- ▶ AVOID CAFFEINE
- ▶ AVOID NUTRASWEET?
- ▶ DRINK 6- 8 GLASSES OF WATER
- ▶ IF OVERWEIGHT, LOSE WEIGHT

# EXERCISE

- ▶ STRETCHING
- ▶ LOW IMPACT AEROBIC EXERCISE
- ▶ YOGA
- ▶ PILATES
- ▶ TAI CHI



# DRUG THERAPY

- ▶ TCAs: AMITRIPTYLINE, TRAZADONE, DOXEPIN, DESIPRAMINE, IMIPRAMINE
- ▶ MUSCLE RELAXERS: CYCLOBENZAPRINE, CARISPRODOL, SKELAXIN, NORFLEX

# DRUG THERAPY

- ▶ SSRIs
- ▶ SNRIs: DULOXETINE, MILNACIPRAN, VENLAFAXINE
- ▶ NSAIDS
- ▶ ANTIANXIETY MEDS
- ▶ GABAPENTIN/PREGABALIN
- ▶ TRAMADOL
- ▶ NARCOTICS

# PSYCHOLOGICAL THERAPIES

- ▶ STRESS MANAGEMENT
- ▶ BIOFEEDBACK
- ▶ RELAXATION TECHNIQUES
- ▶ GROUP THERAPY
- ▶ INDIVIDUAL COUNSELING

# ELECTRICAL STIMULATION

- ▶ ALPHA STIMULATION
- ▶ AURICULAR STIMULATION
- ▶ TENS

# OTHER THERAPIES

- ▶ MASSAGE THERAPY
- ▶ PHYSICAL THERAPY
- ▶ CHIROPRACTIC THERAPY
- ▶ TRIGGER POINT INJECTIONS

# FIBROMYALGIA TREATMENT

- ▶ ONCE DISCUSSION OF DIET AND EXERCISE – THEN
- ▶ FOCUS ON SLEEP ENHANCEMENT WITH MEDS AND WITH SLEEP HYGIENE TECHNIQS
- ▶ ONCE SLEEP IMPROVED AND STILL PAIN, THEN TRIAL OF SSNI OR SSRI
- ▶ IF STILL PAIN CONSIDER TRIAL OF GABAPENTIN/PREGABALIN

# CASE 1

- ▶ 27 YO WF MOTHER OF 2
- ▶ ONSET OF DIFFUSE PAIN FOR 3 YEARS
- ▶ FEELS UNRESTED UPON AWAKENING
- ▶ DRINKS 6-7 CANS DR PEPPERS/DAY
- ▶ FEELS HER HANDS AND FEET SWELL
- ▶ COMPLAINS OF NUMBNESS IN HANDS AND FEET
- ▶ COMPLAINS OF FATIGUE

# CASE 1

- ▶ PE: 12/18 TENDER POINTS AND NORMAL JOINT/ NEUROLOGIC MUSCLE EXAM
- ▶ Dx: FIBROMYALGIA
- ▶ DISCUSSED DECREASING CAFFEINE INGESTION AND EXERCISE
- ▶ STARTED ON AMITRYPTILENE 10MG QHS AND TITRATED UP TO 30 MG QHS

1 MONTH FOLLOWUP - IMPROVED FATIGUE AND PAIN LEVELS



# CASE 2

- ▶ 27YO WF WITH 6 MONTH HISTORY OF DIFFUSE PAIN
- ▶ PAIN WORSE IN BACK AND NECK AREAS
- ▶ NO NEUROLOGIC SYMPTOMS BUT FEELS FATIGUED
- ▶ POOR SLEEP WHICH SHE ATTRIBUTES TO PAIN
- ▶ STIFFNESS IN AM LASTS ABOUT 2 HOURS
- ▶ SEEMS TO DO BETTER WITH PHYSICAL ACTIVITY

# CASE 2

- ▶ PE: NORMAL EXCEPT TENDERNESS IN BUTTOCKS AND LUMBAR SPINE. NO PERIPHERAL SYNOVITIS. 6/18 TENDER POINTS
- ▶ LABORATORY: NORMAL ESR/ CRP POSITIVE HLA B27
- ▶ XRAYs: NORMAL SI JOINTS BUT MRI SHOWS ONE SMALL EROSION AND MILD SCLEROSIS OF SI JOINTS.
  
- ▶ DIAGNOSIS: ANKYLOSING SPONDYLITIS

# Case 3

- ▶ 55 yo wf
- ▶ Complaints of diffuse pain for over 15 years but worse in the last 2 years
- ▶ Complaints of fatigue and poor sleep
- ▶ PMH: hypertension and hyperlipidemia
- ▶ MEDS: hctz 25mg daily and atorvastatin 10mg daily

# Case 3

- ▶ PE: normal exam except mild degenerative changes in hip joints and 12/18 trigger points
- ▶ Dx: FIBROMYALGIA. MAY HAVE WORSENERD DUE TO SLEEP ISSUES RELATED TO MENOPAUSE
- ▶ Started on trazadone 50mg qhs and titrated up to 150mg qhs
- ▶ Better sleep but still having pain
- ▶ Started on duloxetine 30mg daily and increased to 60 mg daily
- ▶ Also started on exercise program

# Case 3

Back in clinic 2 months later

Improved pain and sleep but not exercising

6 months later – back in clinic and not doing well

Started on PT program

Improved again with PT

# Case 3

- ▶ Returns to clinic one year later
- ▶ Not doing well with poor sleep and increased pain
- ▶ On same dose of trazadone and duloxetine
- ▶ Also no longer exercising
- ▶ Started back on exercise through PT help

# Case 4

- ▶ 55yo wf referred for diffuse pain
- ▶ History of pain for 25 years but worse in the last 6 months
- ▶ Diffuse pain but worse in hip and shoulder area
- ▶ PMH: hyperlipidemia and hypertension

# Case 4

- ▶ PE no synovitis in any joints. Tender points 12/18
- ▶ LAB: esr 52 CRP 7.3
- ▶ DX: PMR and fibromyalgia
- ▶ Started on 5mg prednisone and 50% symptoms improved
- ▶ Then started on plaquenil as steroid sparing agent and prednisone tapered over 3 months. Also placed on cyclobenzaprine 10-30 mg qhs FOR FIBROMYALGIA



# Case 5

- ▶ 32 yo wf with diffuse pain FOR 2 YEARS
- ▶ Fatigued and having difficulty functioning
- ▶ Poor sleep and “fibro fog”
- ▶ Drinks 1 bottle of mountain dew
  
- ▶ PMH: negative EXCEPT FOR SKIN LESIONS
- ▶ MeDS: none

# Case 5

- ▶ PE: 14/18 tender points negative controls, otherwise normal exam
- ▶ Lab: ANA 1:80 nucleolar pattern
- ▶ DX: fibromyalgia with probably false positive ANA
  
- ▶ Started on nortryptilene 10mg qhs and titrated up to 50mg for improved sleep
- ▶ Better but still symptomatic
- ▶ Milnacipran added – dose pack x 2 then 50mg bid
- ▶ Pain and fatigue improved

# Case 5

- ▶ Back two years later and not doing well
- ▶ Has not been exercising and still ingesting caffeine
- ▶ Milnacipran increased to 100mg bid
  
- ▶ Some improvement but still feeling poorly
- ▶ Gabapentin 300mg qhs started and titrated up to 300mg bid and 600mg qhs
- ▶ Exercise and nutrition counseling

# Case 6

- ▶ 26yo wf with diffuse pain
- ▶ Complaints of pain all over
- ▶ Poor sleep and “ fibro fog”
- ▶ Fatigued and feels unable to do ADLs
- ▶ PMH: negative
- ▶ Social HX: not working
- ▶ Meds: on hydrocodone 10/325 6 daily

# Case 6

- ▶ PE: tender all over with 4/4 positive control points
- ▶ PREVIOUSLY TREATED WITH trazadone, duloxetine, gabapentin, pregabalin, venlafaxine and multiple muscle relaxers without any improvement
- ▶ Asking about disability and more narcotics
- ▶ Dx: UNCLEAR BUT SUSPICIOUS FOR PSYCH OR MALINGERING
- ▶ Sent for neuropsychiatric testing