Definizione della sindrome fibromialgica, aspetti epidemiologici e collocazione nosografica

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Atlas
Annual Thinking LAb on
Fibromyalgia Syndrome

Diagnostic and therapeutic care pathway for fibromyalgia

P. Sarzi-Puttini[1], V. Giorgi[1], F. Atzeni[2], R. Gorla[3], E. Kosek[4,5], E.H. Choy[6], L. Bazzichi[7], W. Häuser[8], J.N. Ablin[9], V. Aloush[10], D. Buskila[11], H. Amital[12,13], J.A.P. Da Silva[14,15], S. Perrot[16], B. Morlion[17], E. Polati[18], V. Schweiger[18], S. Coaccioli[19], G. Varrassi[20], M. Di Franco[21], R. Torta[22], K.M. Øien Forseth[23], K. Mannerkorpi[24], F. Salaffi[25], M. Di Carlo[25], G. Cassisi[26], A. Batticciotto[27]

Fibromyalgia position paper

P. Sarzi-Puttini[1], V. Giorgi[1], F. Atzeni[2], R. Gorla[3], E. Kosek[4,5], E.H. Choy[6], L. Bazzichi[7], W. Häuser[8], J.N. Ablin[9], V. Aloush[10], D. Buskila[11], H. Amital[12,13], J.A.P. Da Silva[14,15], S. Perrot[16], B. Morlion[17], E. Polati[18], V. Schweiger[18], S. Coaccioli[19], G. Varrassi[20], M. Di Franco[21], R. Torta[22], K.M. Øien Forseth[23], K. Mannerkorpi[24], F. Salaffi[25], M. Di Carlo[25], G. Cassisi[26], A. Batticciotto[27]

La fibromialgia è una sindrome da sensibilizzazione centrale caratterizzata dalla disfunzione dei neuro-circuiti preposti alla percezione, trasmissione e processazione delle afferenze nocicettive, con prevalente estrinsecazione del dolore a livello dell'apparato muscoloscheletrico.
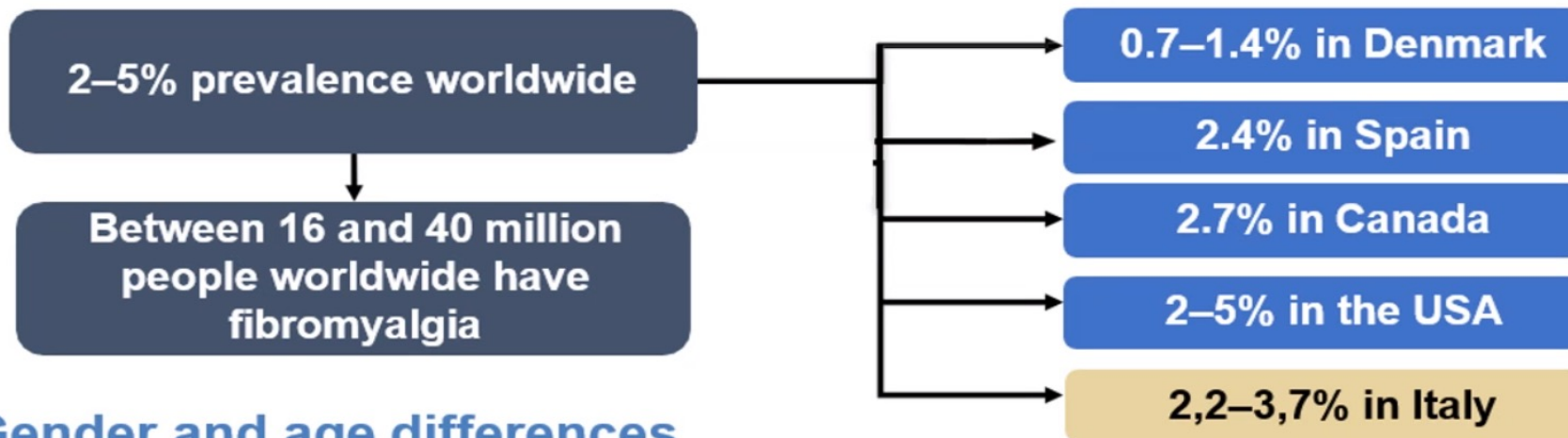
Oltre al dolore possono essere presenti molteplici sintomi di accompagnamento (astenia, disturbi del sonno, dolori addominali…) comuni ad altre sindromi da sensibilizzazione centrale.

Numbers of Medline-referenced publications during nine 12-month periods at five year intervals from 1970 to 2010. The data illustrate a dramatic increase in publications about FMS beginning in 1990 when the American College of Rheumatology approved Classification Criteria for FMS.
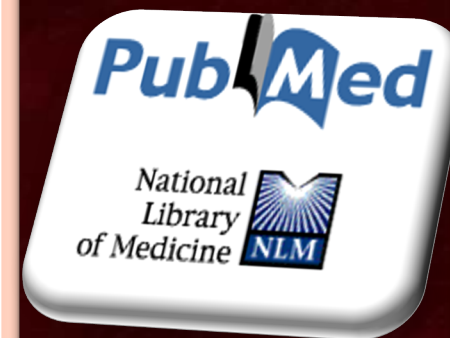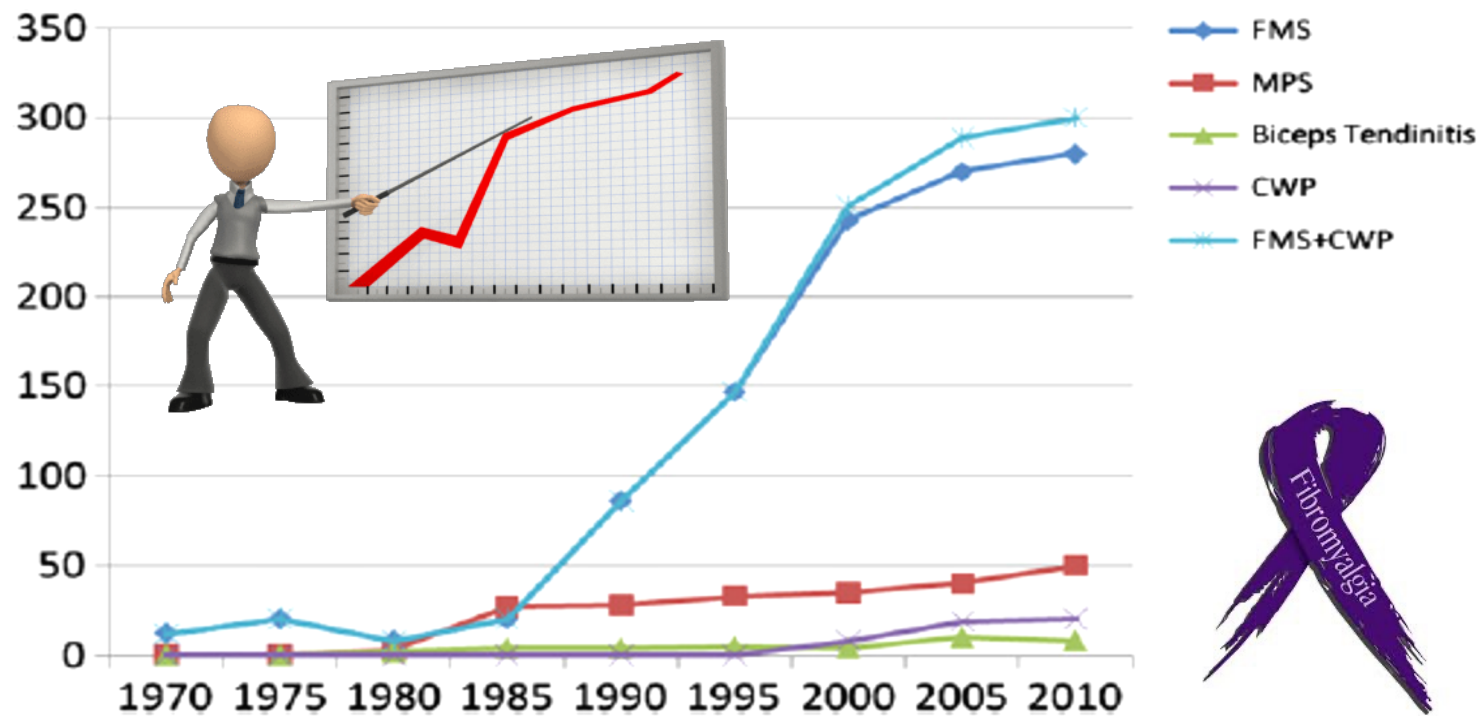
Epidemiology of Fibromyalgia

Fibromyalgia is the most common chronic widespread pain condition

2–5% prevalence worldwide	0.7–1.4% in Denmark
↓	2.4% in Spain
Between 16 and 40 million people worldwide have fibromyalgia	2.7% in Canada
	2–5% in the USA
	2,2–3,7% in Italy

Gender and age differences

- **This condition affects women 10 times more frequently than men**
- **Majority of patients are aged 35–60 years (working age)**

Burckhardt CS, et al. APS Clinical Practice Guidelines Series, No. 4. Glenview, Ill: American Pain Society; 2005; Neumann L, et al. *Curr Pain Headache Rep* 2003;7:362–8; Wolfe F, et al. *Arthritis Rheum* 1995;38:19–28; Lawrence RC, et al. *Arthritis Rheum* 1998;41:778–99; Wolfe F. *Am J Med* 1986;81(suppl 3A):7–14; Weir PT, et al. *J Clin Rheumatol* 2006;12:124–8.

Prevalence of musculoskeletal conditions in an Italian population sample: results of a regional community-based study. I. The MAPPING study

F. Salaffi, R. De Angelis, W. Grassi, on behalf of the MArche Pain Prevalence INvestigation Group (MAPPING) Study*

Prevalence in the total target adult population of the soft-tissue disorders: shoulder pain, fibromyalgia, carpal tunnel syndrome, neck pain, and lateral epicondylitis.
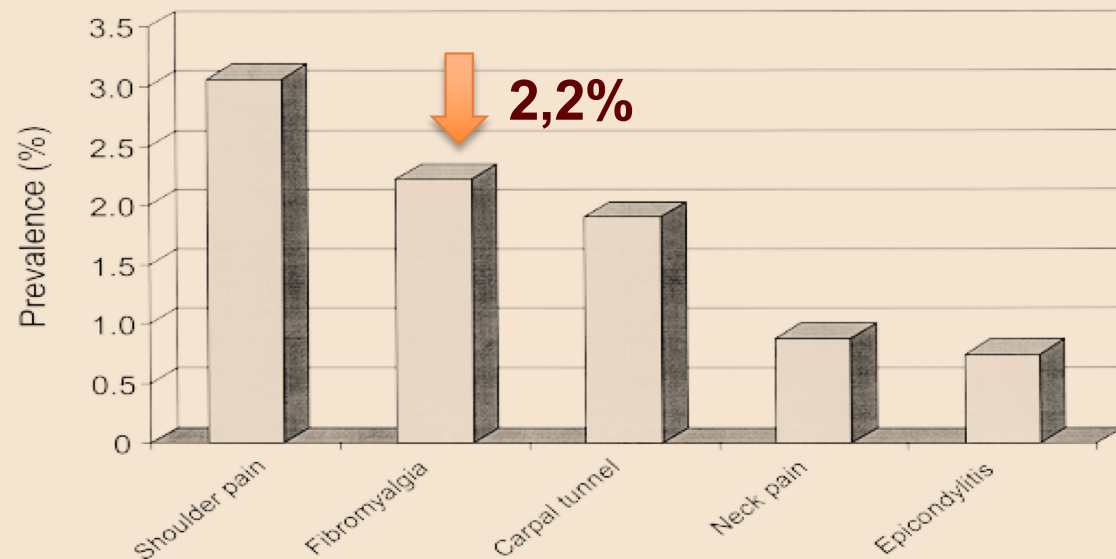
The estimated rate of disease prevalence for fibromyalgia was 2.22% (95% CI 1.36-3.19)

Definition of fibromyalgia severity: findings from a cross-sectional survey of 2339 Italian patients

Fausto Salaffi [1], Marco Di Carlo [1], Laura Bazzichi[2], Fabiola Atzeni [3], Marcello Govoni[4], Giovanni Biasi[5], Manuela Di Franco[6], Flavio Mozzani[7], Elisa Gremese[8], Lorenzo Dagna[9], Alberto Batticciotto[10], Fabio Fischetti[11], Roberto Giacomelli[12], Serena Guiducci[13], Giuliana Guggino [14], Mario Bentivegna[15], Roberto Gerli [16], Carlo Salvarani[17], Gianluigi Bajocchi[18], Marco Ghini[19], Florenzo Iannone [20], Valeria Giorgi[21], Sonia Farah [1], Mariateresa Cirillo[3], Sara Bonazza[4], Stefano Barbagli[5], Chiara Gioia[6], Daniele Santilli[7], Annunziata Capacci[8], Giulio Cavalli[9], Francesco Carubbi[12], Francesca Nacci[13], Ilenia Riccucci[16], Luigi Sinigaglia[22], Maurizio Masullo[23], Bianca Maria Polizzi[23], Maurizio Cutolo[24] and Piercarlo Sarzi-Puttini [21]

FIQR, FAS 2019mod and PDS cut-off values for FM severity states

| FM severity state	Cut-off values		
	FIQR	FAS 2019mod	PDS
Remission	≤23	≤12	≤5
Mild	>23 and ≤40	>12 and ≤20	>5 and ≤15
Moderate	>40 and ≤63	>20 and ≤28	>15 and ≤20
Severe	>63 and ≤82	>28 and ≤33	>20 and ≤25
Very severe	>82	>33	>25

FAS 2019mod: modified Fibromyalgia Assessment Status; FIQR: revised Fibromyalgia Impact Questionnaire; PDS: Polysymptomatic Distress Scale.

CUTOFF DISTRIBUTION

The application of the calculated cutoff points for FIQR, Mod FAS and PDS showed the following distribution: remission in 11.0%, 12.3% and 4.5% of the patients, mild severity in 12.6% 15.8% and 26.4%, moderate severity in 28.6%, 32.3% and 24.1%, high severity in 31.2%, 21.2% and 25.7% and very high severity in 16.2%, 18.4% and 19.2% of the patients, respectively. **According to the FIQR cut-off points, 47.4% of the patients resulted in high or very high disease severity,** while according to the Mod FAS and PDS cut-off points these percentages were 39.6% and 44.9%, respectively.

F Salaffi et al. 2020
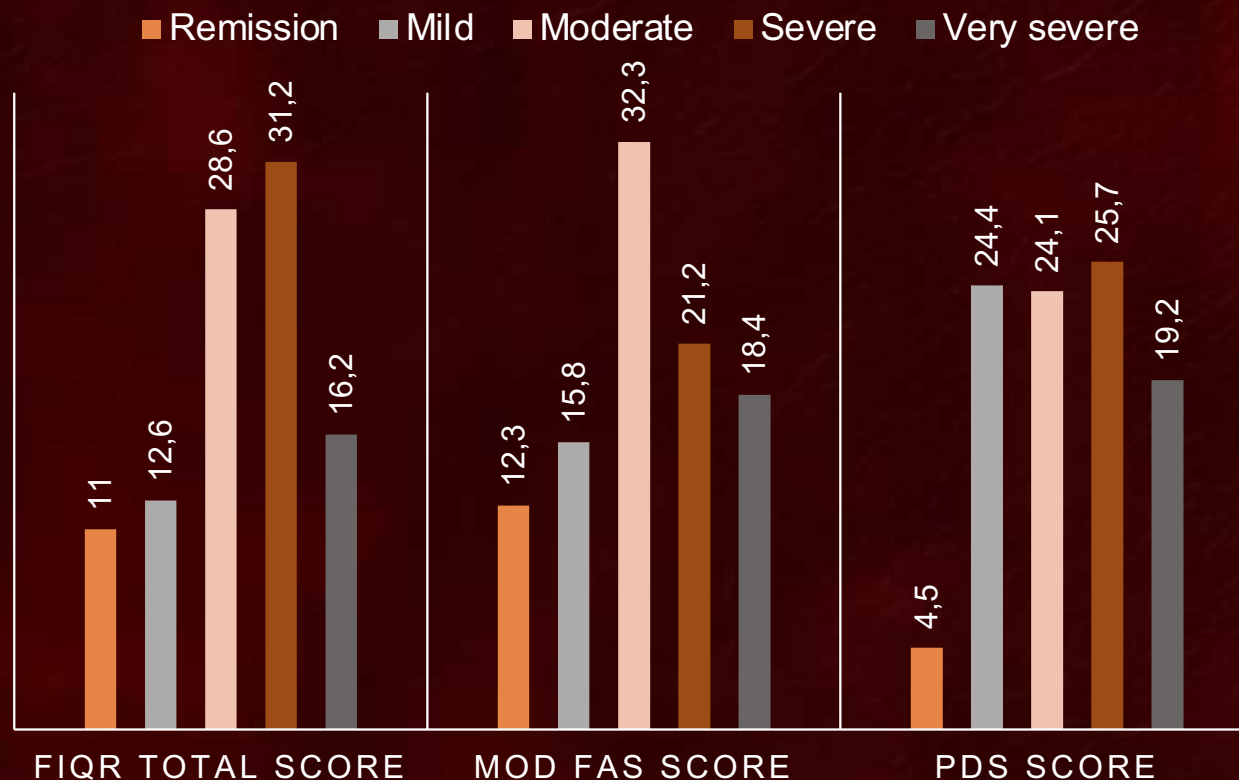
Questionnaires	Remission	Mild	Moderate	Severe	Very severe
FIQR total score	11	12,6	28,6	31,2	16,2
Mod FAS score	12,3	15,8	32,3	21,2	18,4
PDS score	4,5	24,4	24,1	25,7	19,2

PAIN

Sexual Dysfunction

Dyscognition

Stiffness

Fatigue

PAIN

Sleep Disturbances

Mood Disturbances

Anxiety/ Psychological Distress

Physical Dysfunction
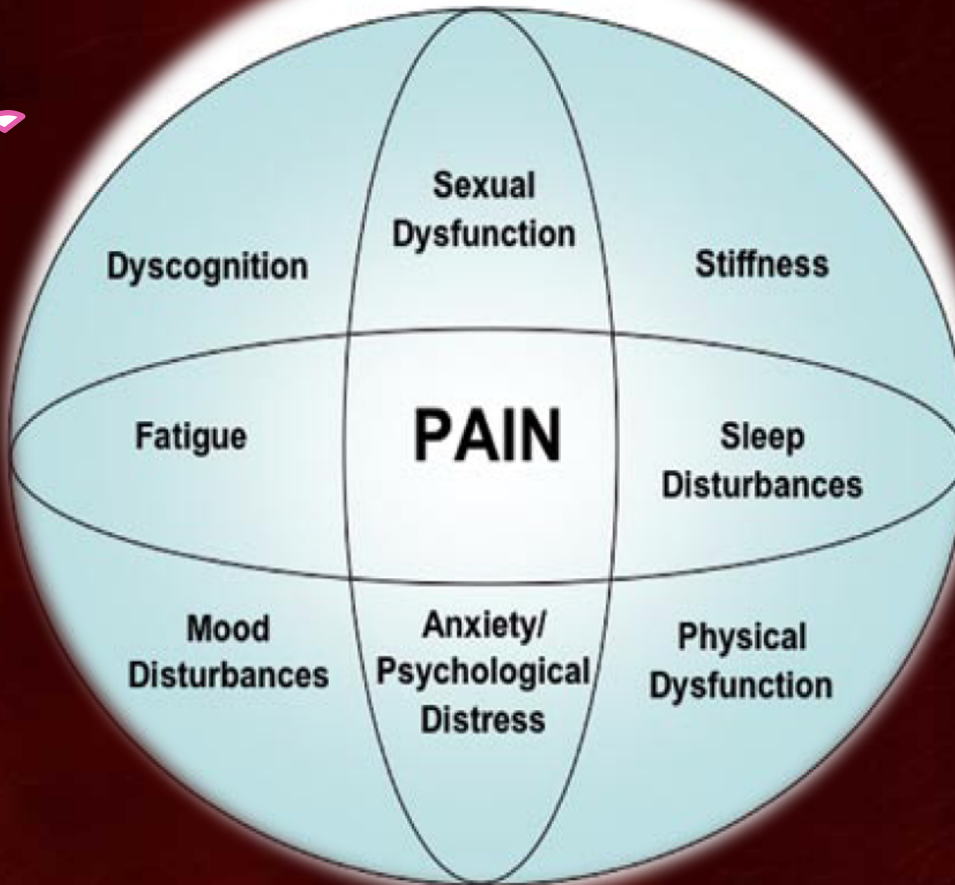
Fibromyalgia domains

Preliminary identification of key clinical domains for outcome evaluation in fibromyalgia using Delphi methods: the Italian experience

F. Salaffi[1], A. Ciapetti[1], P. Sarzi Puttini[2], F. Atzeni[2], C. Iannuccelli[3], M. Di Franco[3], M. Cazzola[4], L. Bazzichi[5]

Domini classificati per rilevanza dai **pazienti**

Dominio	Items	Frequency	Mean importance (MI)	Frequency importance product (FIP)
1. Dolore	Dolore o disagio fisico; articolazioni dolenti; dolorabilità alla palpazione	97.3	2.9	282.2
2. Fatica	Stanchezza; scarsa energia	93.6	2.7	252.7
3. Qualità del sonno	Difficoltà ad addormentarsi; insonnia; risvegli frequenti	90.1	2.6	234.3
4. Funzione multidimensionale	Difficoltà nei movimenti, nel camminare o svolgere esercizi; difficoltà nello svolgere normali attività, compromissione dell'attività lavorativa, scolastica ed impatto nella vita quotidiana	89,8	2.6	233,5
5. Depressione	Sentirsi tristi, demotivati, pessimisti, isolati, svogliati	81.5	2.4	195.6
6. Sensibilità a stimoli esterni	Sensibilità a suoni, luci, odori e/o al freddo	78.3	2.4	187.9
7. Ansia	Sentirsi frustrati; essere preoccupati; avere paura	76.1	2.3	175.0
8. Disturbi cognitivi	Difficoltà nel ricordare o pensare; perdita di memoria; difficoltà nel concentrarsi	74.7	2.1	156.9

Preliminary identification of key clinical domains for outcome evaluation in fibromyalgia using Delphi methods: the Italian experience

F. Salaffi[1], A. Ciapetti[1], P. Sarzi Puttini[2], F. Atzeni[2], C. Iannuccelli[3], M. Di Franco[3], M. Cazzola[4], L. Bazzichi[5]

Domini classificati per rilevanza dai **clinici.**

Dominio	Frequency	Mean importance (MI)	Frequency importance product (FIP)
1. Dolore	79,0	2,85	225,2
2. Fatica	78,6	2,65	208,3
3. Disturbi del sonno	74,6	2,70	201,4
4. Salute-qualità della vita (HRQL)	73,8	2,60	191,9
5. Depressione	70,2	2.60	182,5
6. Ansia	71,8	2,50	179,5
7. Problemi di memoria e di concentrazione	69,1	2,40	165,8
8. Tender points	60,2	2,20	126,4

The IASP classification of chronic pain for *ICD-11*: chronic primary pain

Michael Nicholas[a], Johan W.S. Vlaeyen[b,c,d], Winfried Rief[e], Antonia Barke[e], Qasim Aziz[f], Rafael Benoliel[g], Milton Cohen[h], Stefan Evers[i], Maria Adele Giamberardino[j], Andreas Goebel[k], Beatrice Korwisi[e], Serge Perrot[l], Peter Svensson[m,n], Shuu-Jiun Wang[o,p], Rolf-Detlef Treede[q,*], The IASP Taskforce for the Classification of Chronic Pain

Chronic primary pain is chosen when pain has persisted for more than 3 months and is associated with significant emotional distress and/or functional disability, and the pain is not better accounted for by another condition.

Chronic pain was defined as pain that lasts or recurs for longer than 3 months.

Fausto Salaffi[1]
Flavio Mozzani[2]
Antonella Draghessi[1]
Fabiola Atzeni[3]
Rosita Catellani[2]
Alessandro Ciapetti[4]
Marco Di Carlo[1]
Piercarlo Sarzi-Puttini[5]

Identifying the symptom and functional domains in patients with fibromyalgia: results of a cross-sectional Internet-based survey in Italy
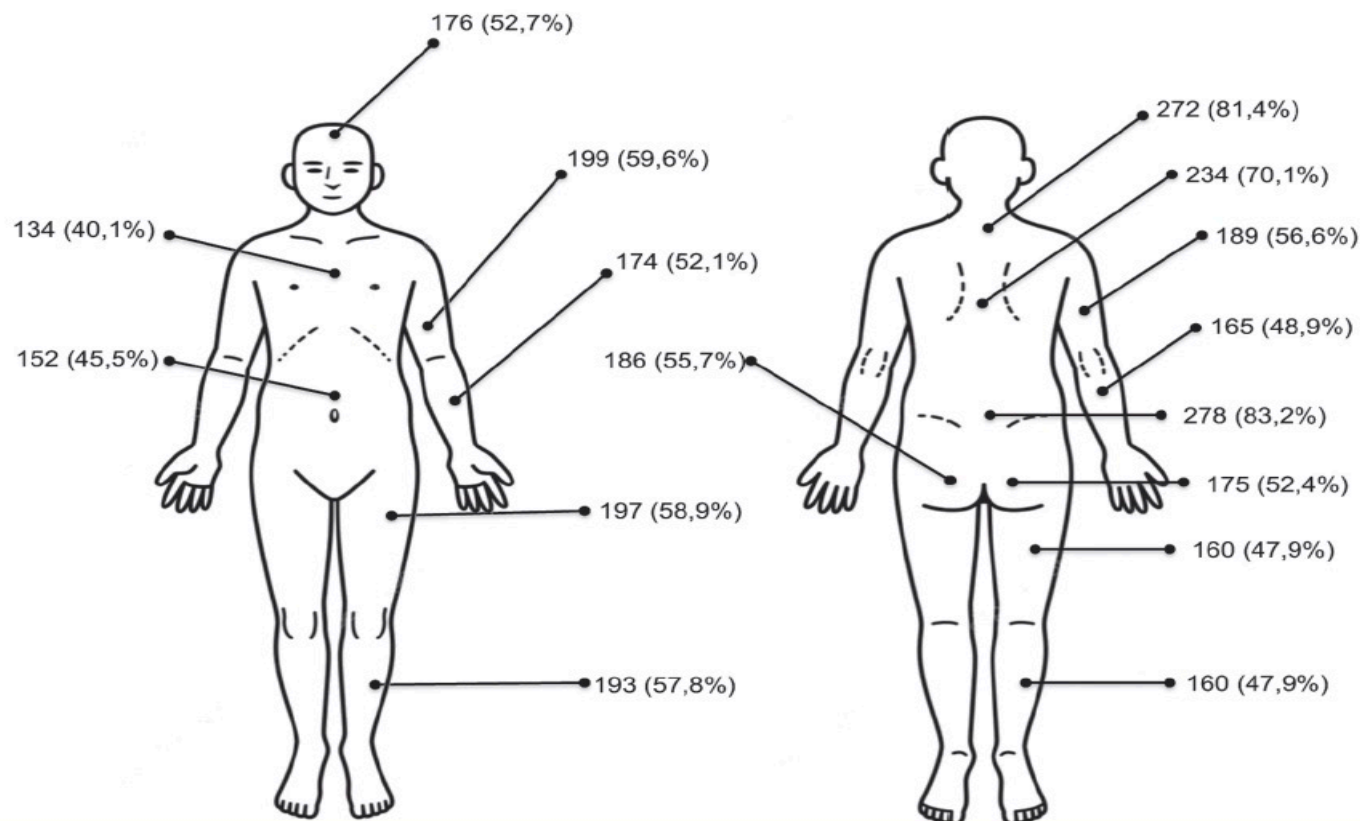
Il paziente descrive il dolore con espressioni del tipo "mi fa male dappertutto", Si tratta di un dolore "centrale", che non ha una localizzazione ed un'entità costante, ma migra e può aumentare o diminuire durante l'arco della giornata

Criteri diagnostici proposti dall'American College of Rheumatology (ACR) del 2016 per la diagnosi di fibromialgia

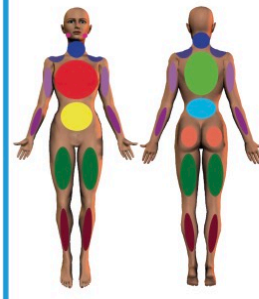**Secondo tale proposta, per la diagnosi di FM devono essere soddisfatti contemporaneamente 3 criteri:**

- **dolore diffuso in specifiche aree e regioni del corpo;**

- **presenza di sintomi caratteristici (astenia, sonno non ristoratore, problemi cognitivi, emicrania, dolore/crampi addominali, depressione) che compromettono la vita quotidiana;**

- **durata della sintomatologia pari ad almeno 3 mesi**

F. Salaffi et al. (2019) www.rheumalab.it

Indice di Diffusione del Dolore (Widespread Pain Index-WPI)
(1 punto per ogni casella spuntata; Range di punteggio: 0-19)

1- Indicare se si è provato dolore o indolenzimento nel corso degli ultimi 7 giorni, nelle aree riportate in figura. Spuntare le caselle in corrispondenza di ogni area interessata dal dolore o dall'indolenzimento.

Cingolo scapolare sinistro	Anca (gluteo, trocantere) sinistra	Mascella sinistra
Cingolo scapolare destro	Anca (gluteo, trocantere) destra	Mascella destra
Braccio sinistro	Coscia sinistra	Torace
Braccio destro	Coscia destra	Addome
Avambraccio sinistro	Gamba sinistra	Area Dorsale
Avambraccio destro	Gamba destra	Area Lombare
Collo	Punteggio:_____ /19 aree	

Indice di Gravità dei Sintomi (Symptom Severity Scale-SSS)
(Range di punteggio: 0-12)

2- Per ognuno dei sintomi elencati esprimere la loro gravità nel corso degli ultimi 7 giorni, utilizzando la scala di seguito riportata.

0= Nessun problema
1= Problema lieve: generalmente lieve e intermittente
2= Problema moderato: disturbo di considerevole entità; presente spesso e/o di grado moderato
3= Problema grave: continuo, che ostacola le attività della vita quotidiana

	0	1	2	3
A. Astenia, spossatezza	○	○	○	○
B. Difficolà di concentrazione, perdita di memoria	○	○	○	○
C. Stanchezza al risveglio, sonno non ristoratore	○	○	○	○

3- Indicare la presenza o assenza dei 3 sintomi (D, E, F) negli ultimi sei mesi

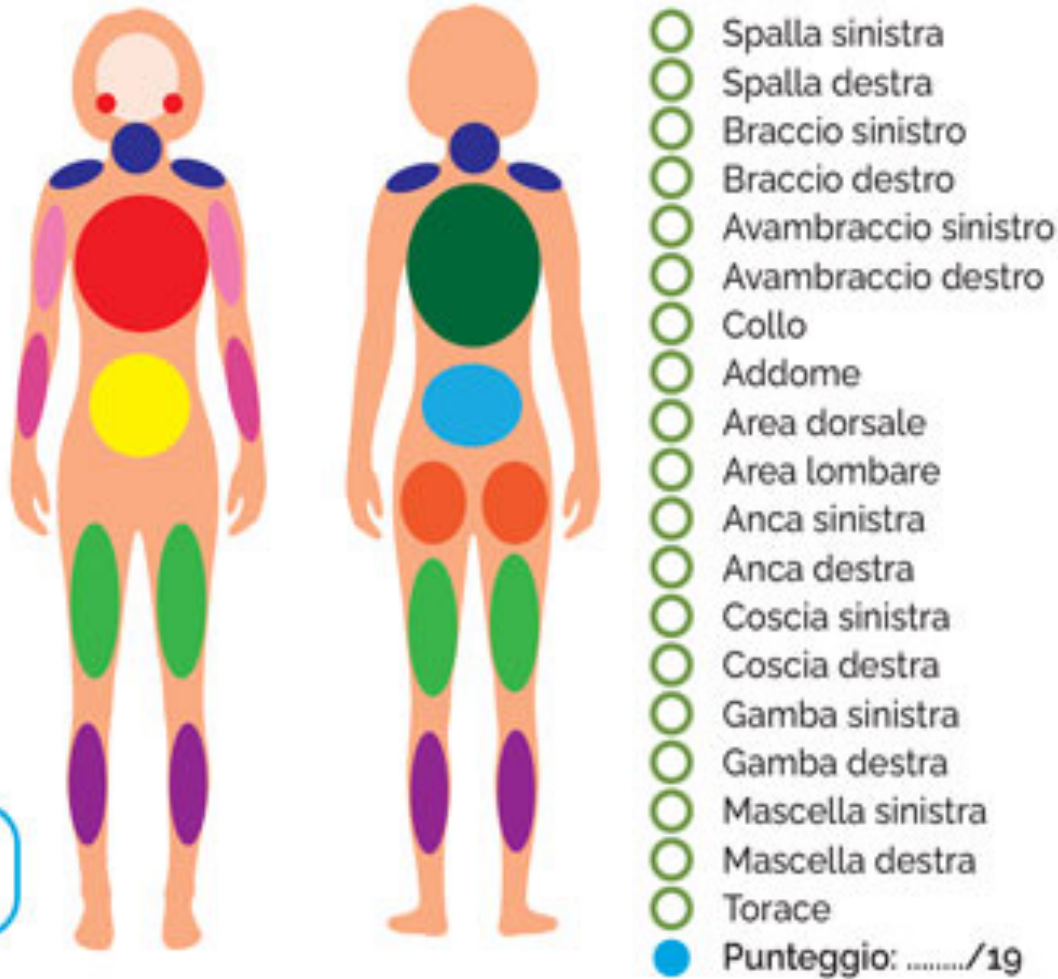|	Assente	Presente
	0	1
D. Dolori o crampi addominali	○	○
E. Depressione	○	○
F. Emicrania, cefalea	○	○

Criteri aggiuntivi (senza punteggio)

4- I sintomi delle domande 2 e 3 e il dolore diffuso sono stati avvertiti per almeno tre mesi? ○ Si ○ No

5- E' presente una patologia che può motivare il dolore avvertito? ○ Si ○ No

Punteggio Totale____ /31

Indichi nelle rispettive caselle se ha provato dolore nelle aree riportate nella figura qui sotto nel corso degli ultimi 7 giorni

O Spalla sinistra
O Spalla destra
O Braccio sinistro
O Braccio destro
O Avambraccio sinistro
O Avambraccio destro
O Collo
O Addome
O Area dorsale
O Area lombare
O Anca sinistra
O Anca destra
O Coscia sinistra
O Coscia destra
O Gamba sinistra
O Gamba destra
O Mascella sinistra
O Mascella destra
O Torace
● Punteggio: ..../19

La combinazione del punteggi della scala di severità dei sintomi (SS) e dell'indice del dolore diffuso (WPI) definisce la diagnosi di fibromialgia (WPI > or =7 e SS > or =5) oppure (WPI 3-6 e SS > or =9).

Diagnosis of fibromyalgia: comparison of the 2011/2016 ACR and AAPT criteria and validation of the modified Fibromyalgia Assessment Status

Fausto Salaffi[1], Marco Di Carlo [ID] [1], Sonia Farah[1], Fabiola Atzeni[2], Dan Buskila[3], Jacob N. Ablin[4], Winfried Häuser[5] and Piercarlo Sarzi-Puttini[6]

With the publication of the ACR 2010 Cr and ACR 2011 Cr, the definition of FM moved from a predominantly chronic pain condition to a multi-symptom disorder, and the tender point exam has been eliminated as a requirement for diagnosis

There is a considerable agreement between criteria-based diagnoses of FM

Understanding key types of pain

NOCICEPTIVE

NEUROPATHIC

DISFUNCTIONAL/ NOCIPLASTIC

Do we need a third mechanistic descriptor for chronic pain states?

Eva Kosek[a,*], Milton Cohen[b], Ralf Baron[c], Gerald F. Gebhart[d], Juan-Antonio Mico[e], Andrew S.C. Rice[f], Winfried Rief[g], A. Kathleen Sluka[h]

Nociplastic pain: Pain that arises from altered nociceptive function.

Central sensitization: a biopsychosocial explanation for chronic widespread pain in patients with fibromyalgia and chronic fatigue syndrome

Mira Meeus · Jo Nijs

First, **lower pain thresholds at different sites (hyperalgesia)** are reported in patients with FS. The lack of peripheral tissue damage and the lack of a distinct localization of the pain complaints are suggestive of a central abnormality responsible for the chronic widespread pain.

A second important argument in the central sensitization theory for FS concerns the **cognitive, psychological, and behavioral changes** in patients diagnosed with FS. FS patients often present with depression

Finally, brain imaging already provided evidence for **altered brain activity in CFS.**

Neuroinflammation and Central Sensitization in Chronic and Widespread Pain

Ru-Rong Ji, Ph.D., Andrea Nackley, Ph.D., Yul Huh, B.S., M.S., Niccolò Terrando, Ph.D., William Maixner, D.D.S., Ph.D.

Accumulating evidence suggests that central sensitization is driven by neuroinflammation in the peripheral and central nervous system. A characteristic feature of neuroinflammation is the activation of glial cells, such as microglia and astrocytes, in the spinal cord and brain, leading to the release of proinflammatory cytokines and chemokines

Recentemente studi di neuroimaging hanno documentato alterazioni consistenti e ricorrenti nell'ambito del Sistema Nervoso Centrale in pazienti affetti da fibromialgia (FM)

In generale, è stata riscontrata una significativa riduzione della densità neuronale ovvero una diminuzione della sostanza grigia cerebrale in numerose aree cerebrali deputate all'elaborazione dell'input nocicettivo (*e.g., talamo, corteccia somatosensoriale primaria, corteccia prefrontale, corteccia cingolata anteriore*), espressione verosimile di un invecchiamento precoce cerebrale, non Alzheimer o età anagrafica – correlato. Anche aree coinvolte nei processi mnestici (*come le aree paraippocampali*) sono spesso interessate.

Functional Magnetic Resonance Imaging Evidence of Augmented Pain Processing in Fibromyalgia
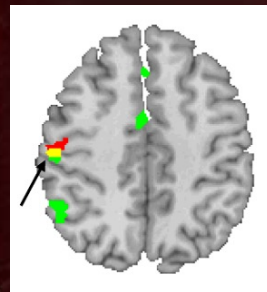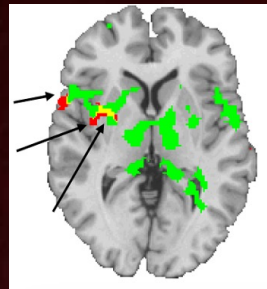
Richard H. Gracely,[1] Frank Petzke,[2] Julie M. Wolf,[3] and Daniel J. Clauw[2]

Biology and therapy of fibromyalgia
Functional magnetic resonance imaging findings in fibromyalgia

David A Williams[1,2] and Richard H Gracely[1,3]

Functional magnetic resonance imaging (fMRI) have helped to provide insights into the role of supraspinal mechanisms in pain perception.

Magnetic resonance spectroscopy, obtains spectra of multiple selected regions and determines the ratio of concentrations of metabolites such as N-acetyl-aspartate, creatine, choline, lactate, glucose and glutamate.
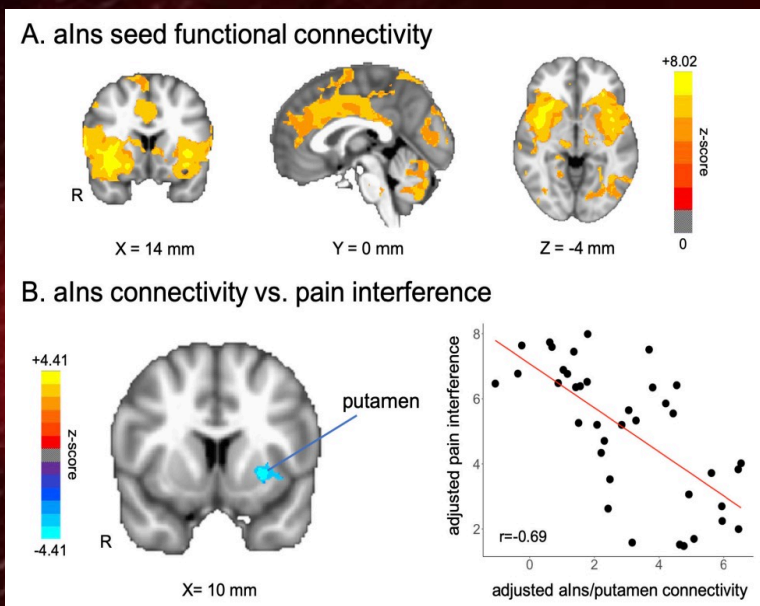
Magnetic resonance perfusion can assess cerebral blood flow and cerebral blood volume, providing measures of baseline differences similar to that currently provided by PET.

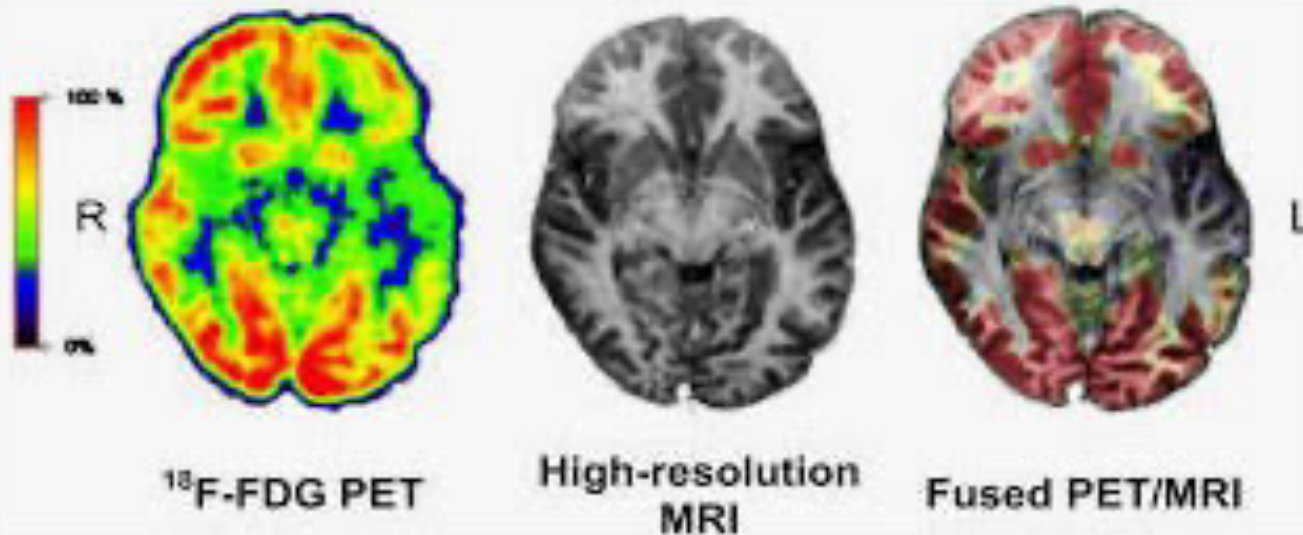# Magnetic resonance imaging of neuroinflammation in chronic pain: a role for astrogliosis?

Changjin Jung[1,2], Eric Ichesco[3], Eva-Maria Ratai[1,4], R. Gilberto Gonzalez[1,4], Tricia Burdo[5], Marco L. Loggia[1,4], Richard E Harris[3,*], Vitaly Napadow[1,4,6,*]

Several proton Magnetic Resonance Spectroscopy (1H-MRS) metabolites have been linked with glial activity (i.e. choline and myo-inositol) and found to be altered in chronic pain patients,

A. aIns seed functional connectivity
X = 14 mm   Y = 0 mm   Z = -4 mm

B. aIns connectivity vs. pain interference
X= 10 mm   putamen   r=-0.69

Results demonstrated that cortical choline levels were correlated with glial fibrillary acidic protein, a known marker for *astrogliosis*. Choline, a putative neuroinflammatory 1H-MRS-assessed metabolite elevated in FS and associated with pain interference, may be linked with astrogliosis in these patients.

Imaging integrato: dalla TC-PET alla PET-RM

Le nuove tecnologie, quali SPECT/TC, PET/TC e PET/MRI, uniscono la possibilità di studiare l'attività metabolica di organi e tessuti e la funzionalità delle cellule, insieme ad uno studio anatomico dettagliato.

L'attuale frontiera nell'utilizzo delle radiazioni (ionizzanti e non) in ambito clinico è quello di utilizzare tecniche combinate, in particolare modo accoppiando fra loro due apparecchiature di diagnostica per immagini, o anche una apparecchiatura di diagnostica per immagini e una di terapia radiante.
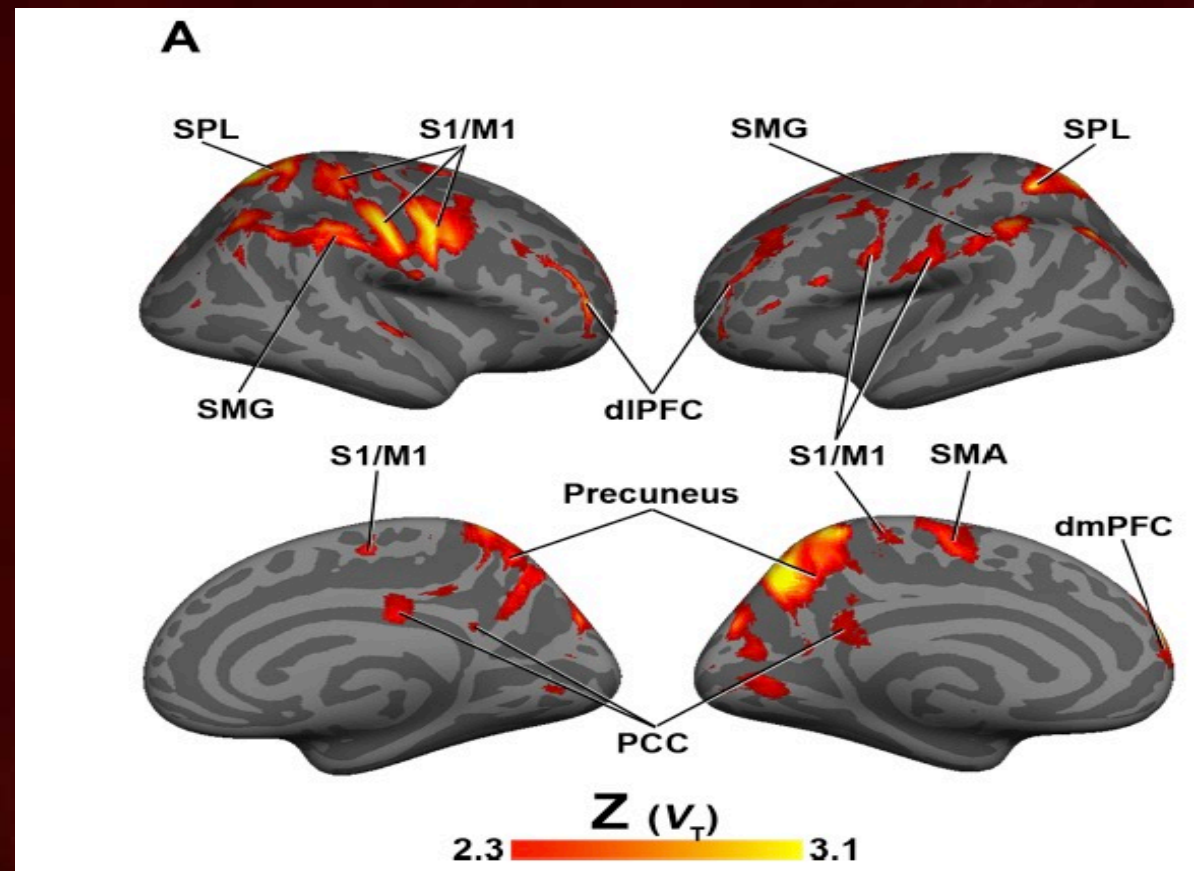

^{18}F-FDG PET   High-resolution MRI   Fused PET/MRI

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Do we need a third mechanistic descriptor for chronic pain states?

PAIN 157 (2016) 1382–1386

Eva Kosek[a,*], Milton Cohen[b], Ralf Baron[c], Gerald F. Gebhart[d], Juan-Antonio Mico[e], Andrew S.C. Rice[f], Winfried Rief[g], A. Kathleen Sluka[h]

# Neuropathic pain component in patients with fibromyalgia

43%

Fausto Salaffi, Sonia Farah, Marco Di Carlo

The study was completed by 393 patients (90% females) whose PDQ scores indicated that 170 **(43%) had a possible/likely NP in the PDQ**. A strongly significant correlation was seen with the WPI (rs=0.66, $p<0.0001$).

In the logistic regression model, widespread pain (coefficient 0.782; $p<0.0001$), was the only independent variable associated with PDQ.
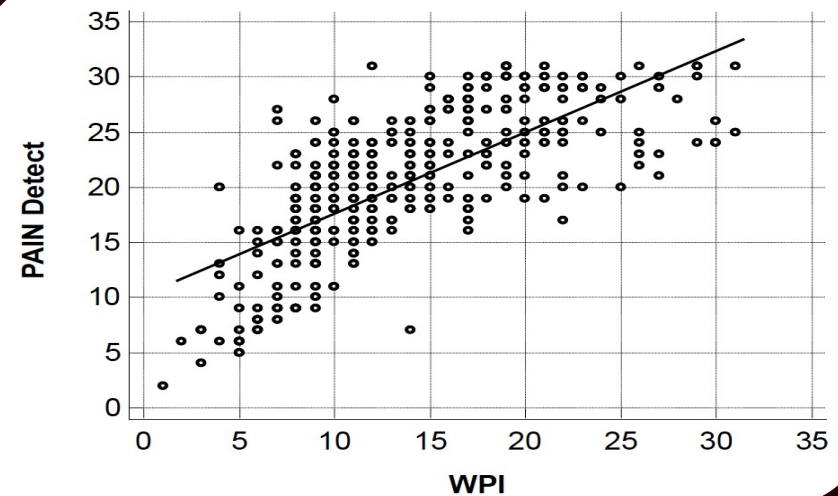
Scatter plots with regression line illustrating the correlation (rs=0.66, p<0.0001), between the Pain Detect questionnaire (PDQ) and the widespread pain (WPI)

The puzzle of fibromyalgia between central sensitization syndrome and small fiber neuropathy: a narrative review on neurophysiological and morphological evidence

Marina de Tommaso [1] [2], Eleonora Vecchio [3] [4], Maria Nolano [3] [4]

Evidence based on structural and functional neuroimaging methods, electrophysiological, and morphological - skin biopsy - features demonstrated a central and peripheral nervous system involvement.

Phillip J. Albrecht* and Frank L. Rice

Fibromyalgia syndrome pathology and environmental influences on afflictions with medically unexplained symptoms

Intraepidermal nerve fiber (IENF) innervation loss is detected among numerous disorders characterized by chronic pain, including overt nerve trauma, metabolic disorders, and viral infections.

control rat — A

nerve injury — B

control foot — C

diabetic foot — D

control back — E

PHN back — F
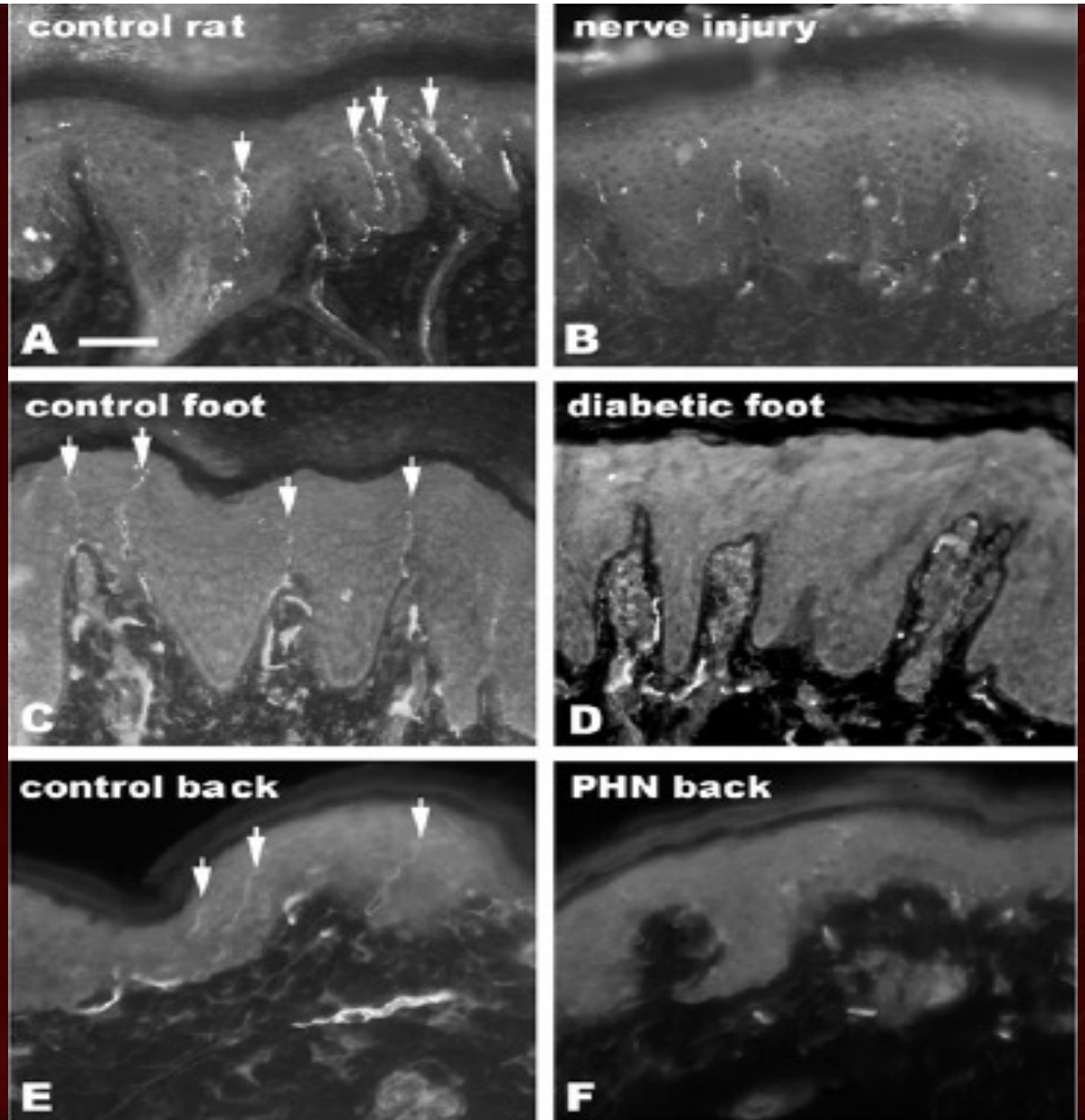
Sural Nerve Size in Fibromyalgia Syndrome: Study on Variables Associated With Cross-Sectional Area

Marco Di Carlo[1*†], Claudio Ventura[2†], Pietro Cesaroni[1†], Marina Carotti[2†], Andrea Giovagnoni[2†] and Fausto Salaffi[1†]
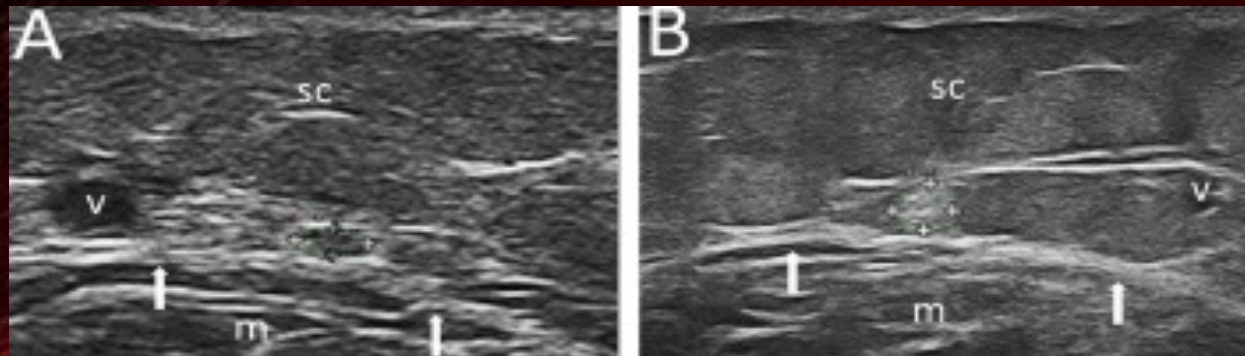
Ultrasound images of the sural nerve at the lateral and distal portion of the calf.

Increased cross-sectional area (CSA) of sural nerve, documented by ultrasound (US), has been revealed in small fibers neuropathy, condition present in about half of patients with fibromyalgia (FM).

Ultrasound examination of the sural nerve at calf level may reveal useful information in patients with FM, identifying a cluster of patients with peripheral nervous system alterations.

Development and validation of the self-administered Fibromyalgia Assessment Status: a disease-specific composite measure for evaluating treatment effect

Fausto Salaffi[1], Piercarlo Sarzi-Puttini[2], Rita Girolimetti[1], Stefania Gasparini[1], Fabiola Atzeni[2] and Walter Grassi[1]

Content validity index values for the individual key domains identified by clinicians

	Frequency	Mean importance	Frequency × importance product
Clinician-identified domains			
1. Pain	100	3.9	390.0
2. Fatigue	99	3.7	366.3
3. Sleep quality	93	3.5	325.5
4. Patient global assessment	86	3.4	292.4
5. Physical function	84	3.3	277.2
6. Depression	80	3.2	256.0
7. Anxiety	77	3.3	254.1
8. Clinician global assessment	68	3.3	224.4
9. Quality of life	67	3.2	214.4
10. Occupational dysfunction	64	3.2	204.8
11. Social dysfunction	62	3.2	198.4
12. Cognitive impairment	57	3.2	182.4

Development and validation of the self-administered Fibromyalgia Assessment Status: a disease-specific composite measure for evaluating treatment effect

Fausto Salaffi[1], Piercarlo Sarzi-Puttini[2], Rita Girolimetti[1], Stefania Gasparini[1], Fabiola Atzeni[2] and Walter Grassi[1]

Content validity index values for the individual key domains identified by clinicians

|	Frequency	Mean importance	Frequency × importance product
Clinician-identified domains			
1. Pain	100	3.9	390.0
2. Fatigue	99	3.7	366.3
3. Sleep quality	93	3.5	325.5
4. Patient global assessment	86	3.4	292.4
5. Physical function	84	3.3	277.2
6. Depression	80	3.2	256.0
7. Anxiety	77	3.3	254.1
8. Clinician global assessment	68	3.3	224.4
9. Quality of life	67	3.2	214.4
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Identifying the symptom and functional domains in patients with fibromyalgia: results of a cross-sectional Internet-based survey in Italy

FIQR symptoms (items 12 and 21)

FIQR function (items 1 and 9)

FIQR overall impact (items 10 and 11)
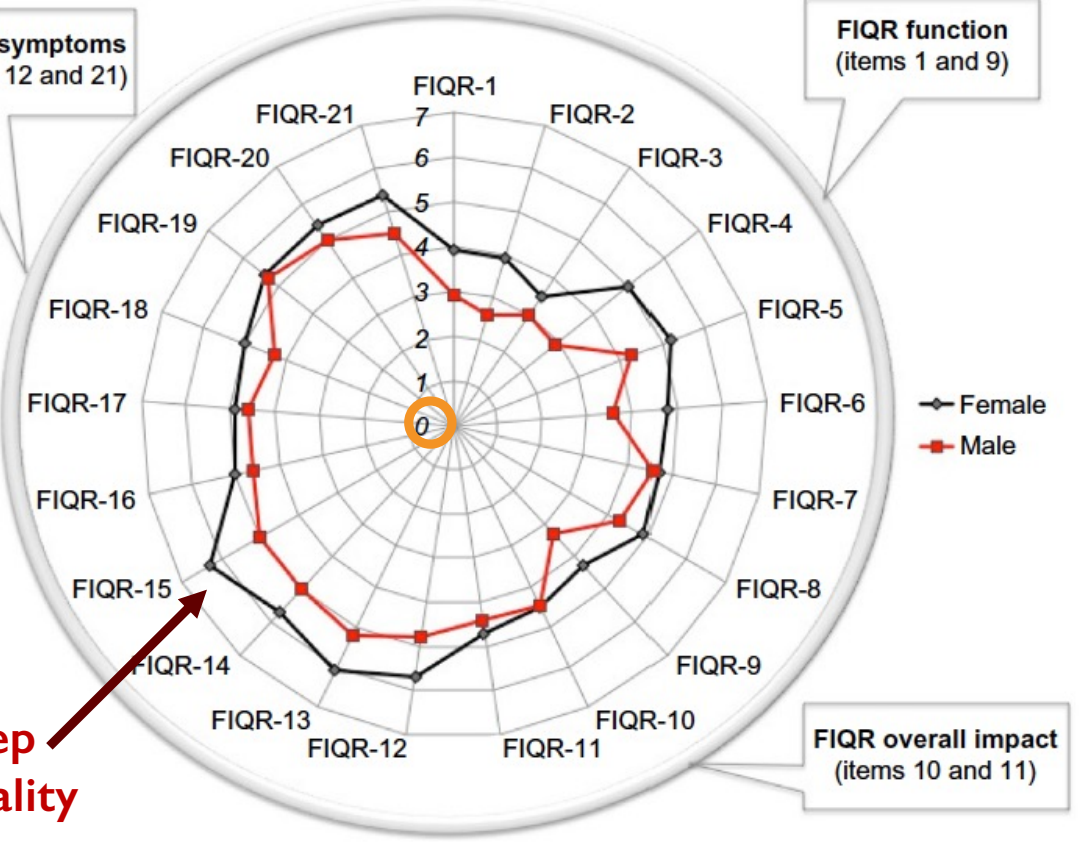
Sleep Quality

FIQR overall impact subtotal		9.16
12	Pain rating	5.69
13	Fatigue rating	6.04
14	Stiffness rating	5.64
15	Sleep quality	6.18
16	Depression level	4.94
17	Memory problems	4.90
18	Anxiety level	4.99
19	Tenderness level	5.42
20	Balance problems	5.33
21	Environmental sensitivity	5.32

The highest scoring items (those with the greatest disease impact) were the following symptoms related: sleep quality (FIQR15), fatigue/energy (FIQR13), pain (FIQR12), stiffness (FIQR14), tenderness (FIQR19), balance problems (FIQR20), and environmental sensitivity (FIQR21).

Domini classificati per rilevanza dai **reumatologi**.

Dominio	Frequency	Mean importance (MI)	Frequency importance product (FIP)
1. Dolore	79,0	2,85	225,2
2. Fatica	78,6	2,65	208,3
3. Disturbi del sonno	74,6	2,70	201,4
4. Salute-qualità della vita (HRQL)	73,8	2,60	191,9
5. Depressione	70,2	2.60	182,5
6. Ansia	71,8	2,50	179,5
7. Problemi di memoria e di concentrazione	69,1	2,40	165,8
8. Tender points	60,2	2,20	126,4

FIBROMIALGIA
Disturbi dell'umore

- **tassi di depressione maggiore variabili dal 20 all'80% con una mediana del 58%** (Hudson e Pope,1996)

- <u>**tasso di depressione maggiore varia dal 14 al 36%**</u> (Buskila,2007), **valori decisamente più alti di quelli osservabili nella popolazione generale (6,6%)** (Kessler,2003)

Anxiety and coping in patients with chronic work-related muscular pain and patients with fibromyalgia

European Journal of Pain (1998) **2**: 309–319

Lillemor R.-M. Hallberg and Sven G. Carlsson

Depression, anxiety, health-related quality of life and pain in patients with chronic fibromyalgia and neuropathic pain

European Journal of Pain 14 (2010) 127.e1–127.e8

Lise Gormsen [a,*], Raben Rosenberg [b], Flemming W. Bach [c], Troels S. Jensen [a]

EULAR recommendations underplay importance of severe anxiety and depression in fibromyalgia treatment

Ann Rheum Dis December 2017 Vol 76 No 12

The relationship between body mass index and pain, disease activity, depression and anxiety in women with fibromyalgia

Burhan Fatih Koçyiğit[1] and Ramazan Azim Okyay[2] PeerJ 6:e4917; DOI 10.7717/peerj.4917

Distinct aberrations in cerebral pain processing differentiating patients with fibromyalgia from patients with rheumatoid arthritis

PAIN 00 (2021) 1–10

Angelica Sandström[a,b,*], Isabel Ellerbrock[a,b], Monika Löfgren[c], Reem Altawil[d], Indre Bileviciute-Ljungar[c], Jon Lampa[d], Eva Kosek[a,b,e]

Chronic pain in FM is often associated with comorbidities such as anxiety resulting in a low health-related quality of life.

FIBROMIALGIA
Fibrofog

- **I pazienti con FM elaborano le informazioni alla stessa velocità dei controlli sani, ma mostrano dei deficit nella MEMORIA A LUNGO TERMINE e nella MEMORIA DI LAVORO** (Grace, 1999)

- **La prestazione mnesica è uguale a quella di un soggetto non fibromialgico di 20 anni più anziano** (Park, 2001)

Validity of the Central Sensitization Inventory compared with traditional measures of disease severity in fibromyalgia

In press 2022

Authors and affiliations

[1]Fausto Salaffi, [1]Sonia Farah, [1]Claudia Mariani, [2]Piercarlo Sarzi-Puttini, [1]Marco Di Carlo

The study included 562 FM patients, 199 (35.4%) were classified as having central sensitization syndrome

The CSI items linked to fatigue/sleep problems (CSI-1, CSI-8, and CSI-12) and muscle pain/tension (CSI-2 and CSI-18) had the highest ratings (greatest impact). The middle score areas were bruxism (CSI-4), gastrointestinal issues (CSI-5), (CSI-12), and headaches (CSI-10).
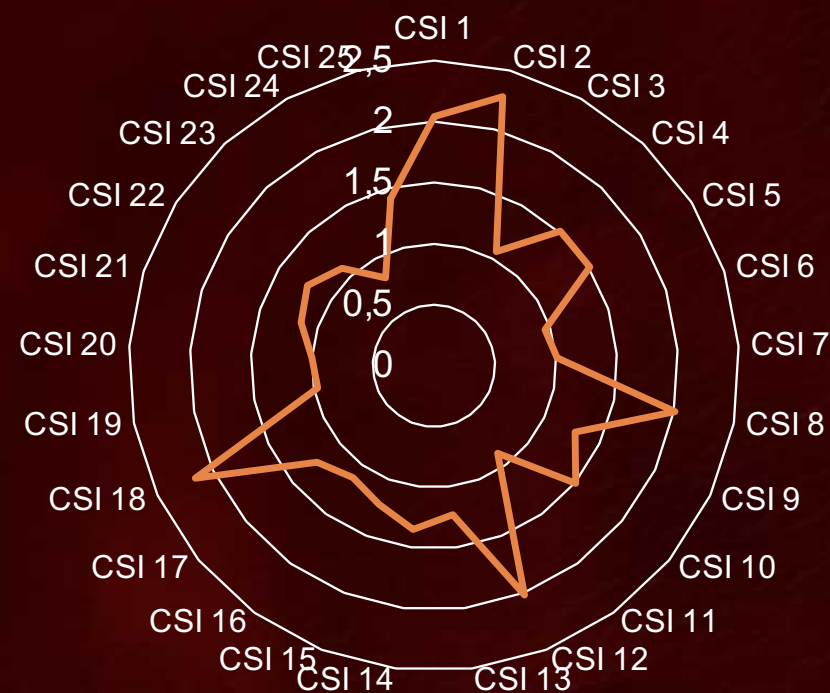
Central sensitization: Implications for the diagnosis and treatment of pain

Clifford J Woolf

In the **urological tract**, pain hypersensitivity is a feature of <u>interstitial cystitis</u>, chronic prostatitis, endometriosis, and vulvodynia, conditions whose pathophysiology and etiology is however, poorly understood. Although central sensitization has been hypothesized to contribute, not much data is available and few studies have been performed.

Men with chronic prostatitis have though heightened pain sensitivity in the perineum while women with vulvodynia have an enhanced post capsaicin allodynia and secondary hyperalgesia compared to controls

Interstitial Cystitis/Painful Bladder Syndrome and Associated Medical Conditions With an Emphasis on Irritable Bowel Syndrome, Fibromyalgia and Chronic Fatigue Syndrome

J. Curtis Nickel,*,† Dean A. Tripp,‡ Michel Pontari,§ Robert Moldwin,‖ Robert Mayer,¶ Lesley K. Carr, Ragi Doggweiler,** Claire C. Yang, Nagendra Mishra and Jorgen Nordling

Lower urinary tract symptoms and perineal function in women with and without fibromyalgia: a cross-sectional study

Hellen Cristina Souza de Carvalho Fusco[1] · Marco Antônio Gonçalves Pontes Filho[2] · Jorge Milhem Haddad[3] · Miriam Raquel Diniz Zanetti[4] · Amélia Pasqual Marques[1] · Elizabeth Alves Gonçalves Ferreira[1]

updates

Association between fibromyalgia and sexual dysfunction in women

Leonid Kalichman

Evaluation of sleep disorder and its effect on sexual dysfunction in patients with Fibromyalgia syndrome

Tuba Tülay Koca[1], Günseli Karaca Acet[1], Emrullah Tanrıkut[2], Burcu Talu[3]

Lower urinary tract symptoms and perineal function in women with and without fibromyalgia: a cross-sectional study

Hellen Cristina Souza de Carvalho Fusco [1] · Marco Antônio Gonçalves Pontes Filho [2] · Jorge Milhem Haddad [3] · Miriam Raquel Diniz Zanetti [4] · Amélia Pasqual Marques [1] · Elizabeth Alves Gonçalves Ferreira [1]

updates

Considering the impact of UI on quality of life, the women in FG scored higher in all the KHQ domains, indicating poorer perception of quality of life when compared with NFG.

OR=5,03

The odds of presenting lower urinary tract symptoms (LUTS) is 5.03 higher in women with FM

Table 4 Impact of urinary incontinence on the quality of life of women with and without fibromyalgia according to King Health Questionnaire (KHQ) domains

KHQ domains	FG ($n=62$)	NFG ($n=64$)	P value
General health perceptions	75 (25–75)	25 (25–25)	< 0.001
Incontinence impact	33 (0–67)	33 (0–33)	0.531
Role limitations	17 (0–50)	0 (0–33)	0.133
Physical limitations	33 (0–50)	17 (0–50)	0.164
Social limitations	0 (0–11)	0 (0–0)	0.089
Personal relationships	0 (0–17)	0 (0–0)	0.076
Emotion	11 (0–33)	0 (0–11)	0.056
Sleep and energy	17 (0–67)	0 (0–17)	0.003
Severity measures	50 (25–67)	33 (25–50)	0.353

Results represented by median (first-third quartiles). P value calculated using the Wilcoxon-Mann-Whitney test
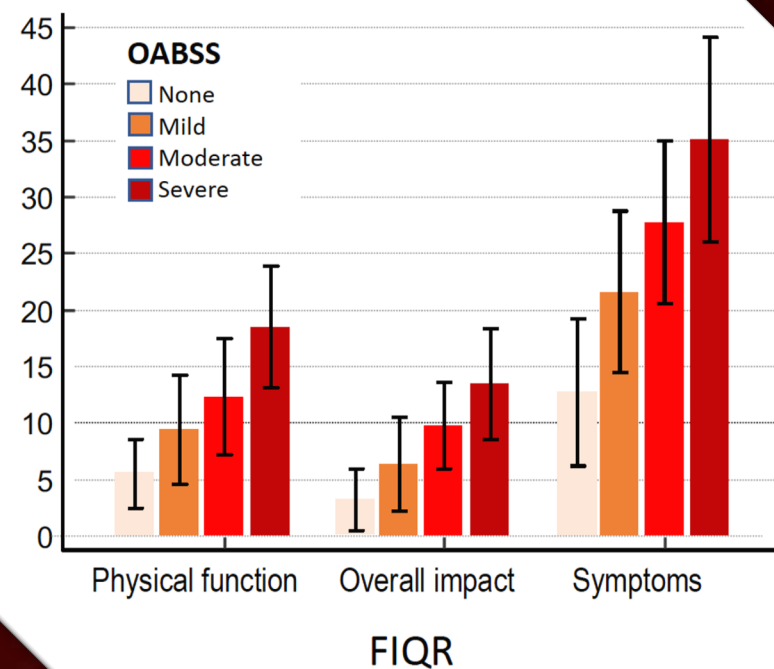
Overactive bladder syndrome and sexual dysfunction in women with fibromyalgia and their relationship with disease severity

F. Salaffi[1], M. Di Carlo[1], S. Farah[1], V. Giorgi[2], P. Sarzi-Puttini[2]

The severity of OAB symptoms showed a direct association with FIQR, suggesting that the more extreme the OAB symptom, the higher the FIQR subdomains

The study included **481** patients, 116 (24.11%) had mild OAB, **82 patients (17.04%) had moderate OAB, and 34 patients had serious OAB (7.06%).** In 14.17% of patients the bladder condition was causing them major issues in terms of discomfort. In 7.87% of patients the bladder condition was causing them significant problems

Overactive bladder syndrome and sexual dysfunction in women with fibromyalgia and their relationship with disease severity

F. Salaffi[1], M. Di Carlo[1], S. Farah[1], V. Giorgi[2], P. Sarzi-Puttini[2]

19%

Sexual dysfunctions were found in 91/481 of women with FM (18.91%).

Using the FSFI as the dependent variable, multivariate analysis revealed a positive relationship between disease incidence as measured by the **FIQR (p<0.0001), PDQ (p<0,0001),** and the degree of pain as measured by the **WPI (p=0.0037).**

Does central sensitization help explain idiopathic overactive bladder?

W. Stuart Reynolds[1], Roger Dmochowski[1], Alan Wein[2], and Stephen Bruehl[3]

Central sensitization describes an induced state of spinal hypersensitivity that is associated with a variety of chronic pain disorders that share many attributes with OAB, albeit without the presence of pain.

An understanding of the pathophysiology and clinical manifestations of central sensitization, and the evidence that supports a role of central sensitization in OAB, including the potential implications of mechanisms of central sensitization for the treatment of patients with OAB could provide a novel approach to the treatment of patients with this disease.

Clinical Evidence of a Neurogenic Mechanism for the Co-existence of Urinary and Bowel Symptoms in Women with Bladder Pain Syndrome

Lori Cory[1], Heidi S. Harvie[2], Gina Northington[3], Anna Malykhina[4], Kristene Whitmore[5], and Lily Arya[3]

This study provides clinical evidence of a neurogenic mechanism for the co-existence of urinary and bowel symptoms in women with bladder pain syndrome.

Relationship of neuropathic pain to urinary and bowel symptoms and quality of life

	Total Neuropathic Pain Score [¥]	
	R value[*]	p-value
Total urinary symptom score (ICSI)	0.31	<0.001[†‡]
Total quality of life score (ICPI)	0.28	<0.001[†‡]
Total bowel symptom score (IBS)	0.49	<0.001[†‡]

In women with bladder pain syndrome, the presence of neuropathic pain is significantly associated with the severity of bladder and bowel symptoms, quality of life and pain catastrophizing. A neurogenic mechanism may explain the co-existence of urinary and bowel symptoms in women with bladder pain syndrome.

GRAZIE per l'attenzione
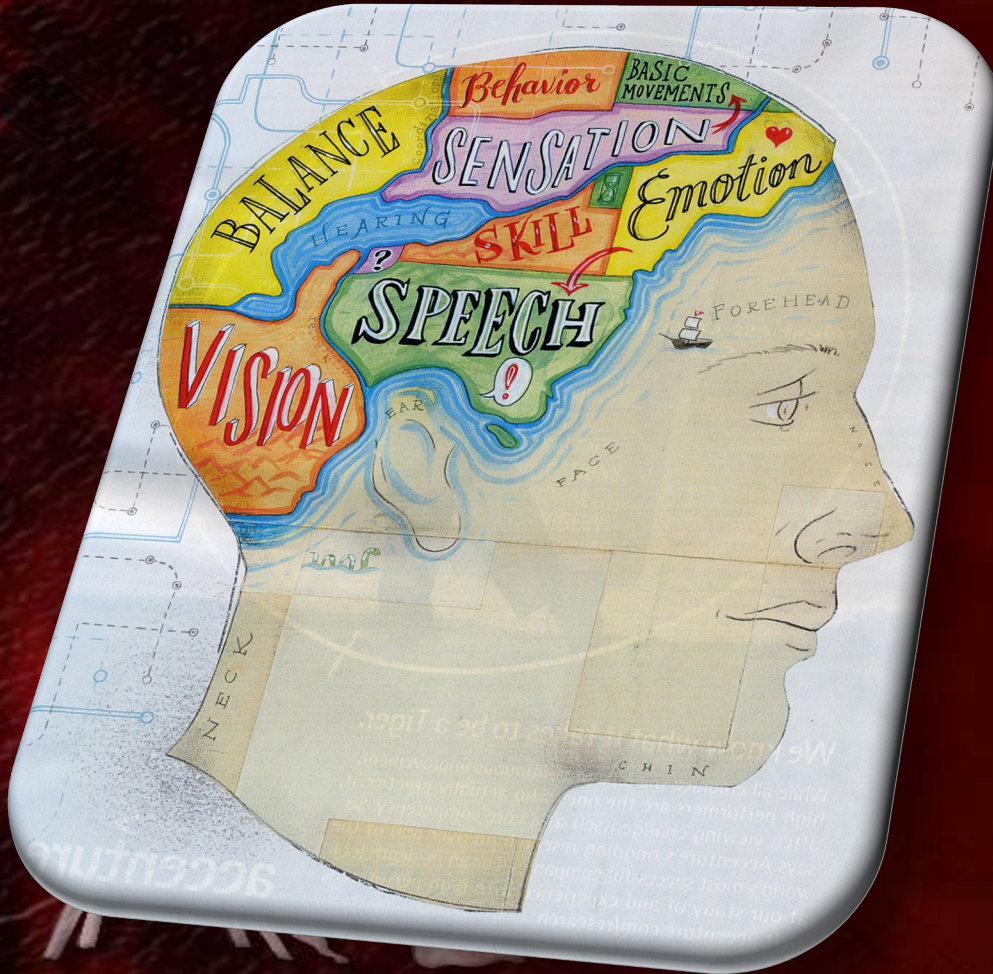
- Wolfe : "*fibromyalgia will always exist regardless of the name given to the syndrome*".

Wolfe F. The fibromyalgia problem. J Rheumatol 1997; 24:1247–9.