other symptoms including fatigue, sleep quality, cognitive symptoms, somatic symptoms and decreased functional status. The impaired somatosensory temporal discrimination ability indicates an alteration in higher cognitive sensory processing in fibromyalgia.

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THU0516

EFFICACY AND SAFETY OF VITAMIN D3 IN PATIENTS WITH FIBROMYALGIA. RANDOMISED, DOUBLE BLIND, PLACEBO-CONTROLLED TRIAL

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Background: fibromyalgia (FM) is a disease characterised by widespread pain, sometimes fatigue, memory problems and sleep disturbances. It has been suggested that low blood levels of vitamin D correlate with increased pain scores in patients with FM. A recent meta-analysis indicated that vitamin D may decrease pain scores in patients with FM, but with a low quality trials.

Objectives: to assess the efficacy and safety of vitamin D3 in Fibromyalgia patients.

Methods: a 12 week randomised, double blind, placebo-controlled trial in eighty FM patients according to the criteria of the American College of Rheumatology (ACR) 2010 who were randomised into two groups, the treatment group (n=40) received 50,000 IU of oral vitamin D3 weekly, the second group (n=40) received placebo for 12 weeks. The primary outcome was to assess the change in the Spanish version of Fibromyalgia Impact Questionnaire (S-FIQ) and Visual Analogue Scale (VAS 0–10) from baseline to week 12. Baseline serum calcium levels were measured in all subjects. Vitamin D levels were measured by chemiluminescence considering normal ranges between 30 and 100 ng/ml, insufficiency between 10 and 30 ng/ml and deficiency less than 10 ng/ml, baseline and after 12 weeks.

Results: of the total, 61/80 (76%) had vitamin D insufficiency, 8/80 (10%) deficiency and 11/80 (14%) normal levels, the mean overall level of vitamin D was 21.2±9.0. There was no statistically significant reduction in S-FIQ scores in patients in the treatment group compared with placebo (47.0±23.3 vs 43.9±25.0, p=0.56) after 12 weeks; there was also no statistically significant decrease in VAS scores (6±5 vs 4±4.5, p=0.57). There was no improvement in the perception of pain when normalising vitamin D levels. No serious adverse events were reported in both groups.

Table 1 Baseline characteristics:

	Treatment (n=40)	Placebo (n=40)	p
Age, mean (SD), years	50.3 (11.9)	51.4 (9.5)	0.6
BMI median (IQR)	26.8 (7.3)	27.2 (5.29)	0.7
Primary FM n (%)	18 (48.6)	19 (51.4)	0.8
Secondary FM n (%)	22 (51.2)	21 (48.8)	0.8
Tender Points median (IQR)	12.5 (4.4)	14 (7)	0.2
Basal Vitamin D median (IQR)	20.1 (14.5)	12.6 (13.4)	0.2
Vitamin D (%)			0.24
Normal	7 (17.5)	4 (10)	
Insufficiency	31 (77.5)	30 (75)	
Deficiency	2 (5)	6 (15)	
Baseline FIQ mean (SD)	64.51 (15.25)	61.88 (18.21)	0.48
Baseline VAS median (IQR)	6 (3)	6 (3.5)	0.36
Primary outcomes			
Final FIQ mean (SD)	47.09 (23.37)	43.9 (25.02)	0.56
Final VAS median (IQR)	6 (5)	4 (4.5)	0.57
Delta FIQ median (IQR)	–16.39 (35.28)	–18.94 (105.13)	0.59
Control Vitamin D median (IQR)	50.8 (24.9)	20.7 (5.84)	0.0001

Conclusions: at 12 weeks of treatment with vitamin D3 50,000 IU versus placebo in patients with fibromyalgia had no statistically significant differences in the FIQ and VAS. It may be possible to find greater benefit from vitamin D if this period is extended.

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THU0517

IDENTIFICATION OF CANDIDATE GENES ASSOCIATED WITH FIBROMYALGIA SUSCEPTIBILITY IN SOUTHERN SPANISH WOMEN: THE AL-ÁNDALUS PROJECT

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Background: Family aggregation suggests genetic susceptibility to fibromyalgia.¹ Candidate-gene studies on fibromyalgia susceptibility often include a small number of SNPs,^{2,3} which is a limitation.⁴ Additionally, there is a paucity of evidence in Europe.

Objectives: To compare genotype frequencies of candidate single nucleotide polymorphisms (SNPs) in a well-characterised sample of Spanish women with fibromyalgia and healthy non-fibromyalgia women.

Methods: Three hundred and fourteen women with a diagnosis of fibromyalgia (cases) and 112 non-fibromyalgia healthy (controls) women participated in the present candidate-gene study. Buccal swabs were collected for DNA extraction. Using TaqMan OpenArray, we analysed 63 single nucleotide polymorphisms (SNPs) of 33 genes related to fibromyalgia susceptibility, symptoms, or potential mechanisms.

Results: The rs841 and rs1799971 GG genotype was more frequently observed in fibromyalgia than in controls (p=0.04 and p=0.02, respectively). The rs2097903 AT/TT genotypes were also more often present in the fibromyalgia participants than in their control peers (p=0.04).

Conclusions: We identified, for the first time, associations of the rs841 (guanosine triphosphate cyclohydrolase 1 gene) and rs2097903 (catechol-O-methyltransferase gene) SNPs with higher risk of fibromyalgia susceptibility. We also confirmed that the rs1799971 SNP (opioid receptor μ1 gene) might confer genetic risk of fibromyalgia. Further studies are needed to confirm or refute the present findings.

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THU0518

THE DIAGNOSTIC VALUE OF SELECTED MICRORNAS IN PATIENTS WITH FIBROMYALGIA ASSOCIATED WITH RHEUMATOID ARTHRITIS: A PILOT STUDY

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Background: Fibromyalgia (FM) is present in a significant proportion of patients with rheumatoid arthritis (RA)¹. Diagnosis and management of patients with rheumatoid arthritis and associated fibromyalgia (FRA) is challenging¹. MicroRNAs (miRNA) are small noncoding RNAs that target mRNA and repress protein production. Recent studies have identified specific patterns of microRNA (miRNA) expression in FM patients³.

Objectives: Our objectives were to determine if there are differences in expression levels of miR let-7a, miR-21–5 p, miR –143 and miR-103a-3p in the blood of