

4<sup>th</sup> International Conference on

# PAIN MEDICINE

October 19-20, 2017 San Francisco, USA

## A balanced low FODMAP diet is effective in treating fibromyalgia patients-reducing pain and improving life-quality

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Fibromyalgia (FM) is a chronic disease of unknown aetiology, characterized by widespread myofascial pain and reduction in quality of life (QOL). FM and Irritable Bowel Syndrome (IBS) are frequently found to be overlapping “sensory sensitivity syndromes”. To date, pharmacotherapy has had limited therapeutic efficacy in treatment of FM. There is growing evidence diets low in FODMAPs (fermentable oligo-di-and mono- saccharides and polyols) are effective in reducing IBS symptoms. We investigated if a balanced low FODMAP diet (LFD) could reduce FM and GI symptoms and improve QOL. We conducted a longitudinal study of LFD intervention using a four-week, repeated-assessment model. Initially, clinical assessments were made and participants presented LFDs. Following LFD treatment, we assessed any effects and reintroduced FODMAPs to the diets. We then conducted final assessments and provided nutritional counseling. Assessment tools included: Revised Fibromyalgia Impact Questionnaire (RFIQ: 0-100), Fibromyalgia Survey Questionnaire (FSQ: 0-31), Severity Score System (IBS-SSS: 0-500), Euro-Quality of Life (QOL: 0-100), and Clinical Outcomes Routine Evaluation (Core-OM: 0-4). The cohort included 38 women, mean age 51 years, with 10 years of FM. Initial assessments showed scores for severity of FM of 22±4.4, RFIQ 65±17, IBS-SSS 275±101 and QOL 48±19. There was 86% adherence to LFD diets accompanied by a significant ( $p<0.01$ ) reduction of FODMAPs intake, from 25 g/day to 2.5 g/day. Follow-up assessments showed significant reductions in VAS Pain, FSQ and RFIQ scores ( $p<0.01$ ). Severity of GI symptoms was reduced by 50% with a significant reduction of IBS-SSS to 132±117. Improvements in FM and gastrointestinal scores were significantly correlated ( $r=0.36$ ;  $p<0.05$ ) and adherence to diet was significantly correlated with “satisfaction with the improvement” ( $r=0.65$ ;  $p<0.01$ ). This pilot study shows that GI and pain symptoms associated with FM can be reduced by restricting FODMAPs. A more comprehensive study of diet therapy for treatment of FM is warranted.

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