A Proposed Treatment Methodology for Fibromyalgia

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Fibromyalgia (FM) is a multifaceted syndrome that affects 2-8% of the population, and is characterized by hyperalgesia, or a heightened sensitivity to pain stimuli. Those with FM experience a broad array of symptoms, including muscle and joint stiffness, sleep dysfunction, as well as various mood disorders. From a clinical standpoint, FM is notoriously hard to treat, given the diffuse effects on the body, the high comorbidity rate, and that there is no “gold standard” method of treatment. In this review, we look to establish a more complete set of guidelines for how to treat those with FM and its various comorbidities, allowing FM patients to receive a more effective modality of care, while simultaneously giving clinicians a template that allows a more effortless manner of providing said care. After combing the literature to examine the diagnosis guidelines, molecular irregularities, common comorbidities, and pharmacological treatments with potential utility, a few common threads arose. Evidence indicates that a serotonin imbalance is one such commonality that might explain the overlap between FM symptoms and comorbidities, explaining why a majority of the symptoms are remedied upon a return to serotonin homeostasis. Although a multidisciplinary approach, combining pharmacological and non-pharmacological methods, is often ideal, here we focus primarily on pharmacological methodologies. After careful analysis, the literature suggests that an ideal treatment plan for (1) patients suffering solely from FM should initially begin with serotonin-norepinephrine reuptake inhibitors (SNRIs); (2) those with FM & sleep disorders should start on a trial run of tricyclic antidepressants (TCAs), then, if unsuccessful, try SNRIs with pramipexole, a dopamine agonist; (3) those with FM & GI disorders should start with selective serotonin reuptake inhibitors (SSRIs), and add SNRIs if needed; (4) those with FM & depressive/mood disorders should begin with SNRIs or SSRIs, and a norepinephrine and dopamine reuptake inhibitors (NDRIs), such as bupropion, could be added, due to the complementary nature of of NDRIs and SSRI/SNRIs; (5) those with FM & hyperalgesic comorbidities should start with SNRIs, and add pregabalin, an anticonvulsant commonly used for muscle and nerve pain, if needed; (7) those with FM & rheumatic conditions should start with SNRIs, and add a glucocorticoid or an immunosuppressant, such as methotrexate, to stunt the autoimmune response. These results reflect the current research on what we know about FM’s etiology and disorders of similar nature. More studies are needed to more accurately depict the pathogenesis of FM, as well as to find the root cause behind the serotonin imbalance, which would allow for a more precise modality of care.