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The concomitant diagnosis of fibromyalgia and connective tissue disorders: A systematic review

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SUMMARY

Background: Anecdotally, fibromyalgia syndrome (FMS) and connective tissue disorders (hypermobile Ehlers-Danlos Syndrome (hEDS), Hypermobility Spectrum disorders (HSD) and Generalized Joint Hypermobility (GJH)) manifest overlap in their diagnostic approach and symptomatic features. Understanding this overlap is important for accurate diagnosis and the success of subsequent management. This study therefore aimed to identify the prevalence of concomitant diagnosis of FMS and hEDS/HSD/GJH in adults and their shared symptomatic manifestations using a systematic review.

Methods: MEDLINE (via EBSCO host) was systematically searched. Observational research (case-control or single group) studies were considered for inclusion, where adults screened for hEDS/HSD/GJH and FMS were compared in terms of diagnostic prevalence, and musculoskeletal and non-musculoskeletal manifestations. Studies on pediatric populations were excluded. The quality of the included studies was assessed using the National Institute of Health Quality Assessment of Case-Control Studies and Jonna Briggs Critical Appraisal checklist for prevalence studies. The review was registered prospectively in PROSPERO (CRD42020216283).

Findings: The review included eleven studies: nine case-control studies and two single group studies. The prevalence of concomitant diagnosis of hEDS/HSD and FMS ranged from 68%-88.9% and from 8.0 to 64.2% for GJH and FMS. The prevalence and severity of a range of objective and patient-reported features were similar between hEDS/HSD and FMS, including joint pain (duration, persistence, SF-36-pain component score); joint swelling; muscle weakness; neurological problems; multidimensional pain inventory-activity; dysautonomia and total autonomic symptoms burden (including orthostatic intolerance, reflex syncope, vasomotor, gastrointestinal, diarrhea, constipation and pupillomotor domains); function; and quality of life. Shared symptomatic features between GJH and FMS were mean pain level, tender points count, total myalgia score and psychological impact.

Interpretation: There may be overlapping symptomatology and diagnostic prevalence of FMS and hEDS/HSD/GJH. Clinicians should consider both diagnoses to ensure appropriate diagnosis and management.

Introduction

In the absence of clear understanding of some musculoskeletal conditions and in the presence of similarities of definitions, pathogenesis, and symptomatic features in musculoskeletal practice, it is necessary to understand concomitant diagnoses in potentially overlapping conditions. Fibromyalgia syndrome (FMS) is a musculoskeletal disorder characterized by chronic pain of at least three months duration, which could start as localized pain and progress to widespread lowering of pain thresholds, resulting in widespread tenderness at multiple body sites [1, 2]. FMS is common with a prevalence of 18% (95% CI of 11%-25%) among people with widespread pain and between 0.2% and 6.6% among the general population [1–4]. The symptomatic features of FMS include headache, sleep disturbances and various syndromes such as myofascial pain, restless leg, irritable bowel, and chronic fatigue and it impacts negatively on psychological health [2,5-7].

Hypermobility spectrum disorder (HSD) and hypermobile Ehlers-Danlos Syndrome (hEDS) are chronic musculoskeletal conditions which commonly affect multiple joints [8–9]. Before the 2017 classification framework these conditions were known as joint hypermobility syndrome (JHS) and Ehlers-Danlos Syndrome, Hypermobility Type (EDS-HT) [8]. hEDS/HSD are connective tissue disorders, in which the

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