OPPERA-2 Conundrums and Challenges: Lumping Versus Splitting?

The OPPERA-2 study findings presented in this issue raise conundrums and challenges for researchers studying temporomandibular disorders (TMD) and for clinicians caring for patients with chronic orofacial pain.

The development of the Research Diagnostic Criteria for TMD (RDC/TMD) in 1992 was a major step forward, differentiating myofascial pain disorders, disc displacements, and arthropathies. Before the RDC, research on TMD was often unreliable and unhelpful in guiding safe and effective clinical practice.

As a researcher and clinician with over 40 years’ experience, I believe that diagnostic differentiation is essential for identifying specific causes and effective treatments. While there is considerable overlap in pain phenotypes, and clinically distinct chronic pain conditions share important common features, when you dig deeper, you can “split” them. When splitting is done successfully, treatment outcomes improve. Based on this experience, I have strong reservations about “lumping” regional myalgias and arthralgia under “painful TMD” to identify persons with chronic overlapping pain conditions (COPCs) in combination with other anatomically defined chronic pain conditions.

So when, and specifically for what aspects, is “lumping” of TMD and co-occurring chronic pain conditions justified? In my opinion, there has to be overwhelming evidence to justify lumping. OPPERA-2 findings, along with decades of prior research and astute clinical observations, provide such overwhelming support for shared psychosocial features of otherwise clinically distinct chronic pain conditions. The rest (genetics, pathophysiology, therapeutics) is far more complicated. While for many chronic pain patients, effective management of psychosocial manifestations of chronic pain may be more helpful and important than diagnostic differentiation and specific treatments of local pathology, this does not provide license for giving up on the clinical imperative to identify specific diagnoses and treatments for our patients. It would be folly to lump painful neuropathies, posttraumatic pain, painful auto-immune disorders, and central post-stroke pain occurring in the orofacial region together with other kinds of orofacial pain. The contribution that the Diagnostic Criteria for TMD (DC/TMD) has made to the advancement of our understanding of painful masticatory system disorders would be lost—and with it, years of hard work and research.

However, there is also considerable evidence that there are centralized mechanisms that influence the expression of chronic pain (genetic, neurophysiologic, psychological, behavioral) that are independent of anatomical pain site and local pain initiators (eg, trauma, inflammation, nerve damage). There may be discrete clinical disorders with distinct causes that respond to specific treatments, but also generalized causes of chronic pain that cut across diverse painful conditions. In elucidating these centralized chronic pain mechanisms, we are also adding to and expanding the understanding of specific pain mechanisms and disorders, and, importantly their management; and I believe we will need greater diagnostic specificity, more refined identification of causal mechanisms, and more individualization of treatments, not less. When reviewing research articles on such issues as “painful TMD,” my approach is: split them first and analyze. Once common issues and problems are established scientifically . . . lump them and reanalyze.

The challenge before us then is how to achieve diagnostic specificity while not ignoring comorbid chronic pain conditions that may provide important information regarding central mechanisms underlying our patients’ pain and suffering. Should we succeed in getting the splitters to work with the lumpers, it could certainly lead to synergistic multimodal management. The specific therapies would be administered while at the same time attending to the established underlying central and other comorbidities. Lumpers and splitters could go very far together.

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