

Therapeutic Approaches to Urologic Chronic Pelvic Pain Syndrome

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Background

Urologic Chronic Pelvic Pain Syndrome (UCPPS) is a complex disorder characterized by chronic pain originating in the pelvic organs, and significantly impacts quality of life in affected patients. The syndrome occurs in both females and males with an estimated prevalence of up to 26.6% across the world. The pathophysiological mechanisms underlying UCPPS are not well understood making it difficult to develop effective therapeutic approaches.

Objectives

- Elucidate the underlying issues facing accurate diagnosis of UCPPS.
- Review the existing approaches as well as novel therapies for treating UCPPS.
- Investigate the efficacy of existing therapies for UCPPS.
- Propose new approaches to diagnosing and treating patients with UCPPS to reduce patient frustration.

Methods

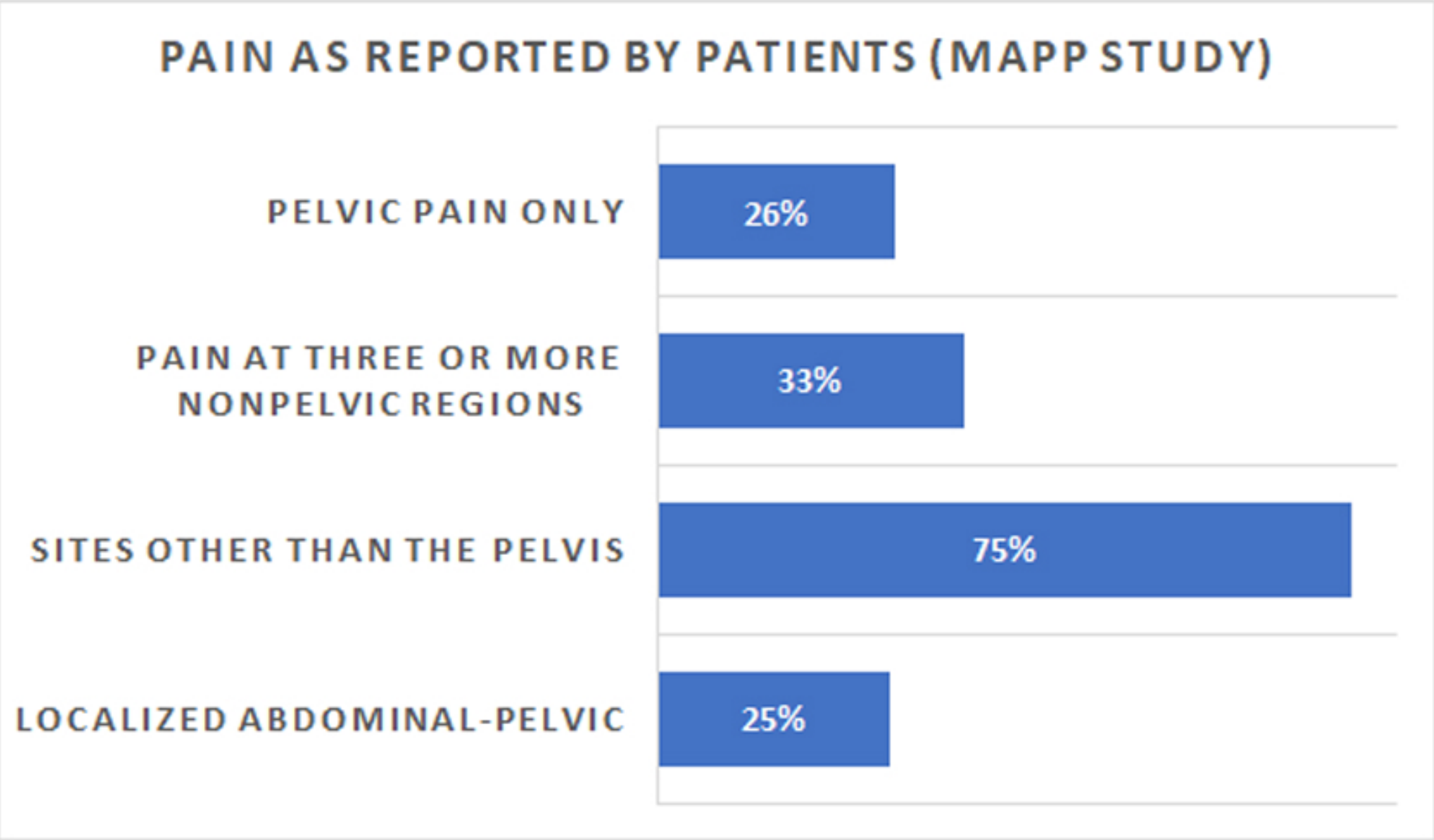
A qualitative review of existing literature on diagnostic, therapeutic, and investigative studies on UCPPS was conducted on multiple platforms. Existing quantitative data on the efficacy of first-line, second-line, and novel therapies for treating patients with UCPPS was analyzed for their ability to reduce symptoms in patients with UCPPS.

Altogether, the data from existing literature was reviewed to see if there is an opportunity to reduce patient frustration in achieving an accurate first diagnosis and then to be subsequently treated.

Results

Upon thorough analysis of the existing literature, it was found that there are two predominant issues causing patient frustration with their UCPPS. This includes: (1) Receiving an accurate diagnosis, which typically does not happen until multiple visits with numerous physicians, and (2) Receiving treatment for UCPPS that can effectively reduce symptoms.

Furthermore, in the Multidisciplinary Approach to the Study of Chronic Pelvic Pain (MAPP) study, it was found that many patients do not suffer from only pelvic pain. Indeed, other sites of pain is quite common among patients, as shown below:



One of the primary advantages gained from the MAPP Network was the ability to use neuroimaging in order to better understand urological pain disorders. Brain structure and function was studied via fMRI and used to assess brain-level changes and its association with UCPPS symptoms. Prior to the MAPP Network, such neuroimaging data was scarce and not readily available for analysis.

Ultimately, it was found that UCPPS involves changes in brain sensory and motor systems regulating urine storage. Furthermore, it was found that these disturbances are powerful enough to produce differences in both brain function and brain structure.

Conclusion

While there are both non-pharmaceutical and pharmaceutical approaches to treating patients with UCPPS, there has been a growing consensus that the medical approach should be biopsychosocial as opposed to purely biological. For instance, in Germany it was found that psychotherapeutic procedures should be time-triggered and not symptom-triggered, as UCPPS undergoes a process of becoming chronic via neuroplasticity which includes psychological and psychosocial components.

An accurate diagnosis of UCPPS is critical in order to reduce patient frustration associated with visiting multiple physicians before receiving the final diagnosis. Physicians can utilize the plethora of existing symptoms that are associated with UCPPS alongside a thorough physical examination, history, imaging techniques, and labs in order to reach an accurate diagnosis. First-line treatments for UCPPS can be made more reproducible based off existing data regarding the efficacy of non-pharmaceutical and pharmaceutical interventions.

UCPPS is a chronic pelvic pain functional disorder complicated by co-morbid conditions, and is characterized by a plethora of symptoms. If an accurate diagnosis of UCPPS is to be reached, it is imperative that the physicians from multiple disciplines (urologists, urogynecologists, psychologists) work together with the patient to understand and differentiate UCPPS from other conditions using a patient interview, imaging, and lab tests. Timely diagnosis of UCPPS followed by appropriate first-line treatments can significantly improve quality of life in affected patients.

References

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