Emergency presentations before and after management in a multidisciplinary chronic pelvic pain clinic

Barwon Health

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Introduction

Chronic pelvic pain (CPP) is defined by RANZCOG as pain that persists in the pelvic area for at least three months despite treatment of what was believed to be originally causing the pain (1). Studies in Australia and New Zealand have reported CPP prevalence among women of reproductive age of 21.5% to 25.4% (2, 3).

Research has shown that CPP, like many other chronic pain syndromes, is multifactorial (4). The original aetiology of chronic pelvic pain may or may not be known. The multifactorial nature of the pain may complicate treatment options. Figure 1 demonstrates the wide variety of mechanisms and biopsychosocial variables that may impact patients with CPP, particularly that related to endometriosis (with the rectangles noting the details of changes). Evidence suggests that once the pain becomes chronic in nature it is a separate disease process regardless of the original cause (5, 6).

Management of CPP requires setting of realistic goals and appears to benefit from a multidisciplinary approach (5).

The chronic nature of the pain can be perpetuated by, as well as result in, other changes that feed into the pain cycle. This includes central sensitisation, autonomic dysregulation and mental health disorders (6).

Opioids are only useful in the acute setting and should be avoided where possible in chronic pain patients. CPP patients may become frequent emergency attenders and often end up reliant on long-term opioids as a result of non-evidence-based management. This creates further issues for the patient and increases burden on the health system (3).

Chronic pelvic pain clinics are increasing in number, but they are a relatively recent approach to this type of pain syndrome. Multidisciplinary clinics in the United States of America have demonstrated that a variety of management strategies result in improvement not only in pain scores, but also in quality of life, and psychological comorbidities (7).

Fortunately, there are an increasing number of multidisciplinary chronic pelvic pain clinics available to Australian women, including at the University Hospital Geelong where this study was performed.

Figure 1. Contributing factors to chronic pelvic pain. (PAG – periaqueductal grey, TRPV1 – transient receptor potential cation channel subfamily V member 1, ERC – entorhinal cortex, HPA – hypothalamic pituitary axis). Reproduced from (6)

Objectives

1. 1. To determine whether there is a significant difference in the frequency of emergency department presentation before and after a patient's first visit to the pelvic pain clinic
2. 2. To determine whether there is a significant difference in admission rate before and after a first visit to the pelvic pain clinic

Methods

Patients who had attended their first appointment at the University Hospital Geelong Pelvic Pain Clinic since it commenced in September 2015 were identified. Emergency department presentations in the two years preceding and the two years following each patient's initial appointment were examined. Presentations to emergency for any type of lower abdominal pain, lower back pain or periumbilical pain were included in the study.

For each presentation to the emergency department it was noted whether the patient was subsequently admitted to hospital or not.

The data was then analysed to identify any differences in presentation and admission frequency before and after the first appointment.

Twenty-four patients were included in the study. Because the data was in a skewed distribution, medians and an interquartile range (IQR) were calculated. These were analysed with median regression analysis. Admission rate was calculated as a percentage of the total number of presentations for each patient to emergency and medians compared.

Results

The median number of presentations to the emergency department before the first clinic appointment was 3 (IQR =1-4.5) compared to a median of 1 after the first clinic appointment (IQR = 0-4) [Figure 2].

Median regression analysis showed a difference between medians of -2 (95% CI -3.6 to -0.36, p=0.017).

The median rate of admission per emergency presentation before the first clinic appointment was 50% (IQR = 0-95%) while median rate after the first clinic appointment was 0% (IQR = 0-72%).

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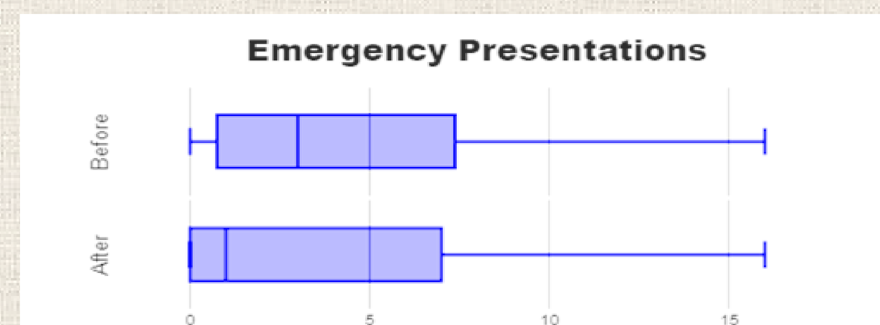

Figure 2. Presentations to emergency before and after the first visit to the CPP clinic

Discussion

The data from this retrospective review suggests that management through a multidisciplinary pelvic pain clinic may reduce the frequency of presentation to the emergency department and subsequent hospital admissions. However, the difference was not found to be statistically significant.

Patients with poorly controlled CPP are more likely to frequent their local emergency department. This creates additional burden on the health system without necessarily improving outcomes for individual patients due to both patient and medical staff frustration as well as inadequate management strategies.

The University Hospital Geelong (UHG) Pelvic Pain Clinic includes a gynaecologist, a physiotherapist, and a consulting pain specialist. This multidisciplinary clinic allows patients to receive well-rounded and tailored treatment programs. Data from other CPP clinics suggest that similar models of care can assist in improving quality of life, pain scores and other outcomes measures (7).

The UHG clinic was opened in 2015, thus there was limited data available for collection. Many patients travel a significant distance to attend the clinic. Any data regarding presentations to other emergency departments was not available for collection for this study.

The CPP clinic studied does not currently involve the option of consultation with a psychologist. Inclusion of mental health support in the clinic may result in further improvements in patient outcomes and behaviours.

Further larger scale research is needed to quantify the effects of multidisciplinary pelvic pain clinics.

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