



Interstitial Cystitis/Bladder Pain Syndrome in Persian Medicine View

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Abstract

Bladder pain syndrome or interstitial cystitis is a disagreeable feeling of pain, pressure and discomfort in the urinary bladder, along with lower urinary tract symptoms that may last more than six weeks with no infection or any other identifiable cause. Its etiology is still unknown. A significant percentage of women with chronic pelvic pain suffer from interstitial cystitis. However, there are some ambiguities in its diagnostic and therapeutic process. In this article, we survey the viewpoints of Persian Medicine scholars about bladder disorders that can fit with interstitial cystitis. Thus, we designed a qualitative content analysis study and investigated signs, symptoms, diagnosis and treatment of interstitial cystitis in conventional medicine articles. Then, diseases of the bladder and the bladder gas was surveyed in the Canon of Medicine by Avicenna (980-1037 AD) and the other literatures of Persian Medicine, in particular. Pain, lower urinary tract symptoms, beneficial reaction to dietary modifications and warming bladder up also the lack of infection and other urinary disorders are observable matches between bladder pain syndrome in contemporary medicine and bladder gas in Persian Medicine. Upon Persian Medicine scholars' viewpoints entrapped gas can cause pain by stretching of bladder tissues. In this opinion, "gas" may be one of the causes of pain and dysfunction in organs. We found reports of gas in some tissues in contemporary medicine, too. If we accept that bladder gas can be one of the manifestations or causes of interstitial cystitis, bladder gas treatment methods that are used in Persian Medicine, can be simple, low-cost preventive and therapeutic methods for its management.

Keywords: Interstitial Cystitis, Bladder Pain Syndrome, Bladder Gas (Riehe masaneh), Persian Medicine

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Introduction

Interstitial Cystitis (IC) or Bladder Pain Syndrome (BPS) is considered an uncomfortable condition of chronic situation [1]. It can influence undesirable effect on the sexual function and quality of life in patients [2, 3]. American Urological Association and Society for Urodynamic and Female Urology (SUFU) and Informal International Dialogue Consensus Meeting describe the term IC/BPS as “An unpleasant sensation (pain, pressure, discomfort) perceived to be related to the urinary bladder, associated with lower urinary tract symptoms of longer than six weeks’ duration, in the absence of infection or other identifiable causes” [4, 5]. The prevalence of BPS is between five and sixteen per 100,000 of the population. Sixty one percent of women with chronic pelvic pain suffer from BPS [3]. There is no very clear condition for diagnosis of this disease and the probability of being predisposed by presiding out another diseases [4]. The etiology of BPS is still uncertain predominantly due to discrepancy on its classification [1]. Current studies demonstrate the substantial relationship between environmental reasons such as drinking manners diet and physical activity with existence of IC/BPS [2]. In this article we will try to survey the viewpoints of Avicenna and other Persian Medicine (PM) scholars about bladder disorders and search diseases’ similarities with interstitial cystitis. It can help us fully understand the BPS/IC etiologies and find simple treatments of it.

Methods

This study is a qualitative content analysis

study. We investigated signs, symptoms, diagnosis and treatment of IC in contemporary medicine view (urology and gynecology books and the related articles in PubMed and Google Scholar databases). Our principal keywords were “Bladder Pain Syndrome, Interstitial Cystitis, and pelvic pain”. Then, we investigated the diseases of bladder and the bladder gas in the Avicenna’s the Canon in Medicine (980-1037 AD) and other reliable PM books such as “Exireh Azam” of Mohammad Azam N (1829-1902 AD), “Algoolanj” of Razi MZ (865- 925 AD), “Almojez Fi-alteb” of Ibn alNafis (1213-1288 AD), and “Kholasat-alhekmat“ of Aghili M. (1670- 1747 AD) particularly. Our inquiry keywords were “*masaneh (bladder)* “, “*Riehe (gas)*”, “*Riehe masaneh (bladder gas)*”. Finally, we surveyed results to find possible overlaps and similarities.

Results

BPS and its nature

One of causes of chronic pelvic pain (CPP) is Bladder Pain Syndrome (BPS) which is defined as bladder pressure or discomfort along with one or more other urinary symptom, without any identifiable pathology or infection [3]. Despite the extensive and valuable studies from the nineteenth century on about BPS, its diagnosis is indistinct and related to ruling out the other details [4]. Etiology of BPS is unidentified [3] and a number of ideas that have been suggested for the mechanisms of this disease do not appear definite [1]. Therefore, special attention must be paid to find any possible etiology.

Comparisons between BPS in contemporary medicine and bladder disorders in PM viewpoints

Reviewing of the causes and symptoms of BPS in contemporary medicine and comparison with the bladder disorders in PM viewpoints about “*Riehe masaneh*” (Bladder Gas) in the works of Avicenna and other PM practitioners, shows the most substantial similarities and overlaps between these two disorders. The observable relationships between Interstitial Cystitis in contemporary medicine and Bladder Gas in PM include lower urinary tract symptoms, pain, absence of infection and other urinary disorders and salutary answer to dietary alterations and bladder warm-up [2, 4-6]. Upon the last results, it seems that BPS could be one of the applicability of bladder Gas (*Riehe masaneh*).

The probability of Gas (Riehe) presence in the body tissues such as bladder in PM perspective

Upon PM, additional moisture (*Rotubat*) and coldness in temperament of any body tissue can weaken function of cells which through imperfect metabolism leads to the creation of gas (*Riehe*) in these tissues [5, 6]. The trapped gas can lead to some complaints in the whole body [6]. In historical medical manuscripts, Avicenna, a very famous Iranian physician [7] in the Canon of Medicine (*Qanoon-fe-alteb*) described that gas in the bladder as a reason for symptoms of urinary tract (lack of ability to urinate habitually from the bladder), bladder pain without other urinary disorders such as infection [6, 8]. Conferred to this view, entrapped gas can stretch bladder tissues and product pain [6, 8]. Further-

more, in PM view, excessive intake of flatulent foods is one more cause for improvement of this disease [6, 8]. Avicenna and other Persian scholars call this disease “the bladder gas” (*Riehe Masane*) [6, 8].

Gas (Riehe) as a cause of pain and dysfunction in the Persian scholar’s viewpoints

In PM “Gas” is one of the pain reasons and dysfunction of organs such as the kidneys, waist, and neck, as well [9, 10]. As mentioned earlier, entrapped gas in bladder tissue can cause pain by stretching the tissue.

Report of Gas (Riehe) in body tissues in contemporary medicine studies

In contemporary medicine primary description of gas in the spine reported in 1937 and this opinion has since been established in a number of trainings [9]. In patients with sacral insufficiency fracture there is intra-osseous gas description in CT scan investigations, too [11, 12].

The role of prostaglandins in the BPS and bladder gas (Riehe)

In one study, Norman A. Smith reported that a patient who was 41-years old female with interstitial cystitis has been asymptomatic for three years because consumption of misoprostol (a synthetic analog of prostaglandin E) for nine months [13]. Another study suggests that application of PGE2 induces bladder detrusor over activity [14] and PGE2-induced contractions can increase tonicity of the human bladder smooth muscle and its spontaneous activity [15].

Discussion

According to PM literature review, trapped gas in the tissue can stretch the tissues and produce pain [6, 8, 16]. Contemporary medicine studies also mention the gas in some tissues of the body [9]. For detection of bladder gas that revealed in the texts of PM, symptoms include pain, inability to urinate normally from the bladder and feel distention in the area of the bladder were explained [6]. However, perhaps the good response to treatments that lead to lowering and eliminating the bladder gas needs appropriate diagnostic tests. On the other hand, as already noted, today radiography is also one of the paraclinical tests used to detect gas in the organs. The original treatment in this situation includes eliminating the gas and preventing its production [6, 17]. But, it looks like using contracting agents can also reduce stretch of the tissue and thus reduce pain. Accordingly, we can say that misoprostol if used in BPS, by creating contractions in the bladder relieves tension caused by gas in the tissue [13, 18, 19]. The increase of prostaglandin E in the urine of patients with BPS [15] may be a defense mechanism in the body to deal this pathogenic situation. The body to deal with excessive stretching of the bladder tissue, increases production and secretion of prostaglandin E. The increase and decrease in active secretions and inhibitors is a common phenomenon in the regulation of body functions [20]. Reports of changes in the level of distress in these patients that changes from abdominal tenderness to severe spasms of the bladder [1] is probably another defense mechanism in the body to cope with the annoying situation. In

other words, to be released from an unusual stretch of the bladder and the pain of it, severe spasm in bladder tissue develops. This severe shrinkage reaction in other bladder diseases is observed when severe pain develops in them. For instance severe bladder spasm can be seen due to pain following bladder surgery or cardiac accidents [21, 22]. In other words, the major cause of pain in this condition is the stretch in bladder tissue while the bladder spasm occurs secondary to this phenomenon.

Suggestions

To confirm this suggestion, using the preventive and therapeutic measures for bladder gas acclaimed by PM can be useful particularly in clinical studies in patients with BPS.

PM treatment of this situation commonly consists of three main stages:

1. Lifestyle adjustment
2. Consuming topical and oral treatments
3. Manipulation (*aamale yadavi*) for required conditions [6, 23, 24].

In the case of bladder gas, PM texts have suggested a wide variety of recommendations. The recommendations include regimental therapy, such as avoiding heavy, dense (*ghaliez*), humidity generator and flatulent foods along with numerous oral and topical medications such as fragrant, figs and solvent oils like Saffron oil and Iris oil [6, 25, 26]. Using warm compress and dry cupping is also recommended [6, 26].

Conclusion

It seems that a significant overlap exists between the two diseases. If bladder gas is one of

the manifestations or causes of BPS, the use of treatments that are used in PM for bladder gas, could lead to another simple, low-cost prevention and treatment for these patients. Hence, clinical study of PM ideas could be a new opening in the treatment of interstitial cystitis.

Conflict of Interest

There is no conflict of interests to declare.

Acknowledgment

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