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Waja'al-Zahr (Low back pain): a review with special emphasis to aetiopathology in Unani System of Medicine (USM)

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Abstract

Waja'al-zahr (Low back pain) is marked as most costly ailment in the productive years. Low back pain (LBP) has been cited as the 2nd most common reason for which patients visit a physician. It is the major cause of activity restriction and work absence all over world and it causes an enormous financial load on individuals, families, communities, industry and governments. The prevalence of back pain in the adult population varies with age. There are a number of surveys in various countries that revealed a point prevalence of 17–30% with a lifetime prevalence of 60–80%. To combat the low back pain, medical fraternity had tried many treatment modalities; but failed to offer effective treatment, prevention and rehabilitative measures.

Unani System of medicine (USM) has an edge on treating the challenging and chronic diseases. Low back pain and its classification are described in detail in classical texts of USM. This review has focussed on description of low back pain in general and aetiopathological description in special. The aim of the article is to reconsider the aetiopathology and management of low back pain.

Keywords: Waja 'al-Zahr', Low Back Pain; Unani System of medicine

1. Introduction

Waja'al-zahr (Low Back Pain) is described as a disease in which pain remains still in the lumbar and lumbosacral region and does not radiate downwards.^[1] Low back pain (LBP) is a general complaint in any developed country. It is a foremost cause of health care expenditure and considerably the most frequent reason for disability in the working years. Although headache may be more common, the impact of LBP on the public is far greater. Almost everybody has at least one incident of LBP at some stage of life ^[2, 3].

Low back pain (LBP) is not a definite disease; rather it is an indication that may arise from a variety of diverse processes. Low back pain is frequently described as discomfort in the lumbosacral region. The pain may be due to variety of causes and many individuals may remain undiagnosed. The majority of the cases of LBP can usually be linked to either a common reason, such as muscle strain or a specific and diagnosable condition such as degenerative disc disease or a lumbar herniated disc [4].

Although there is no confirmation that back pain occurrence has increased, reported disability owing to back pain, chiefly work absence [5]. It has been reported that lifetime prevalence of LBP in developed countries is up to 85%, which makes this complaint second only to the common cold. It was calculated that 37% of LBP was attributed to profession, with two fold difference across regions; the accredited proportion was higher for men than women, because of higher participation in the labour force and in occupations with heavy lifting or whole body vibrations. The first episode of LBP is typically highest in the third decade of life and overall prevalence increases with age until the 60-65 years age group and then gradually declines [2, 3]. It is described in USM that Waja (pain) is a perception of incongruity in the body, which is due to abrupt changes of temperament or sū'-i-mizāj mukhtalif (variable impaired temperament) and tafarruq-i-ittiṣāl (loss of continuity). The newly developed abnormal temperament becomes $h\bar{a}rr$ (hot) or $b\bar{a}rid$ (cold) contrary to the original temperament. The perception of such a contrary temperament is pain. According to Jalīnūs (Galen) loss of continuity is the actual cause of pain and thus, if cold produces pain, it is through a breach of continuity, by shrinking and retracting the tissue particles and thus dislocating these from their original positions [6].

The early Greeks recognized the symptoms of back pain as a disease. The Edwin Smith papyrus, the oldest surgical manuscript dating back to 1500 BC, contain a case of back strain ^[7]. In Unani System of Medicine, *Waja'al-zahr* is illustrated as a disease in which pain arises from interior and peripheral muscles, ligaments surrounding the lumbar and lumbosacral region.^[1] *Waja'al-zahr* (Low back pain) has been depicted as pain in the back region (Lumbo sacral region) under diverse headings, such as *Kamar ka dard*,^[8] *Darde Pusht*,^[9-12] Low back pain (LBP),^[5,13-15] Low back sprain / Strain ^[16] and Lumbago ^[14-16].

Waja'al-zahr (Low back pain) can be superficial or deep. It can be due to cold impaired temperament, predominance of phlegm, physical exertion, incorrect sitting posture, increased sexual activity, weak kidneys, premenstrual pain, labour pain, congestion of portal vein and aorta [1, 5, 9, 12, 17, 18, 19].

Abu Bakr Muhammad bin Zakariya Rāzi, (Rhazes) in his treatise Al-Kitab Al-Hawi illustrated Low back pain as Waja'al-zahr, Darde pusht, with its etiology as darba (trauma), hadba (disc prolapse) and qurūḥ nukha (spinal ulcers) [20].

Ibn Sina's (Avicenna) view on low back pain is as *Darde pusht*, which may occur in the muscle and ligament of the back within and superficially, that can be distinguished by palpating the peripheral surface of the back, which confirm the presence of tenderness^[1].

Azam Khan in **Al-Ikseer** illustrated **Ibn Sina's** view on low back pain as *Darde pusht*, which arise in the muscles and ligaments of the back either within or superficially, this can be distinguished by palpating the peripheral surface of the back, which supports presence of pain [11].

2. Classification of Low Back Pain in Conventional medicine:

The Conventional medicine classify low back pain according to character, it may be; pain of spinal origin, pain referred to back, local pain and tenderness, radicular back pain, musculoskeletal pain and inflammatory pain. [5, 17-19] According to severity; acute LBP and chronic LBP [18-20] and According to activities/occupations mechanical LBP, non-mechanical LBP [5]

3. The aetiology as per Conventional medicine: [5, 17, 18, 21, 22]

- Back muscle sprain
- Prolapsed lumbar intervertebral disc
- Obesity
- Poor posture
- Facet joint arthritis
- Impracticable activities
- Work-related causes

Apart from above stated causes, other significant causes of low back pain are:

spondylolysis, spondylolisthesis, spondylitis, spinal stenosis, spina bifida, lordosis, compression fracture, lumbosacral sprain, subluxation, muscle injury, osteoarthritis, facet syndrome, spinal stenosis, disc protrusion, tuberculosis (pott's spine), brucellosis, etc and referred pain from gynaecological diseases, genitourinary diseases, gastrointestinal conditions etc [5, 14, 17, 18, 19, 23-25].

4. Classification of Waja'al-zahr in USM: [9]

The Waja'al-zahr classified according to the cause:

- 1. **Sū'-i-mizāj sada:** It is characterized by steady onset; pain lacking heaviness or tension; sense of coldness and lasts for long time.
- 2. **Balgham khām:** It is characterized by pain with heaviness, which aggravates day by day.
- 3. **Riyāh:** It is characterized by momentary type of pain with tension
- 4. *Mumtalī rag*: In this type, pain (throbbing) is felt upright, from first cervical vertebrae up to last lumbar vertebrae and gets aggravated with activities.
- 5. **Zoafe gurda:** It is coupled with kidney problem and pain is felt obliquely.
- 6. *Kasrate jimā*: In this type, history of excessive indulgence in sexual conduct is established.
- 7. Awāridāt reham: This type of Waja'al-zahr arises in females during premenstrual period

5. Aetiopathology

Akbar Arzani in his treatise *Tibb-e-Akbar* has described seven causes of *Waja'al-zahr* i.e. $s\bar{u}'$ -i- $miz\bar{a}j$ $b\bar{a}rid$ $s\bar{a}da$ (impaired cold temperament), balgham $kh\bar{a}m$ (raw phlegm), kasrate $jim\bar{a}$ (excessive sexual intercourse), zoaf wa lagharie gurda (weakness of kidney), $mumtal\bar{i}$ rag (vascular congestion), riyah (flatus) and $aw\bar{a}rid\bar{a}t$ reham (uterine disorders) $^{[9,12]}$.

Most of the well-known Unani physicians described various causes of Waja'al-zahr under the broad heading of Waja'almafāsil (joints pain). Abu Bakr Muhammad bin Zakariya **Razi**, a renowned Unani physician described the disease in the 11th volume of his book Al Hawi fit Tib, though the description is scattered, but covers all probable causes associated with disease. According to him, the first and primary cause of Waja'al-mafāsil lies in the abnormal formation of Ruṭūbat-i-mukhātia (chyme) due to Naqs (defect) in hadm kabidī wa hadm 'urūqī (hepato-vascular metabolism) consequently the abnormal chyme produces abnormal humors, predominantly ghayr tab 'ī balgham (abnormal phlegm), which then gets accumulated in the joints of the body, causing swelling, tenderness and pain. Thus we can state that the basic cause of Waja'al-zahr is the Nags in hadm kabidī wa hadm'urūqī, in which ghayr ṭab'ī balgham gets accumulated in the joint structures of lumbosacral region. He articulates that occasionally weakness or extensiveness of joint structures either congenitally or due to some other disease, bestows the seat to accumulate the abnormal humors in general or vitiated phlegm in particular [20].

According to *Ibn Sina*, *Waja 'al-zahr* arises from internal and external muscles, ligaments surrounding the lumbar and lumbosacral region due to $s\bar{u}$ '-i- $miz\bar{a}j$. This $miz\bar{a}ji$ $fas\bar{a}d$ (temperamental abnormality) is owing to excess $bur\bar{u}dat$ (cold) and accumulation of balgham $kh\bar{a}m$ (raw phlegm). He further stated that pain may also occur due to accumulation of $ghal\bar{t}z$ $riy\bar{a}h$ (viscid flatus) in the lumbar and lumbosacral region [1].

6. Alāmāt (Clinical features)

In Unani System of Medicine, the clinical features of *Waja 'al-*zahr are based on causative factors [8, 9, 11, 12];

Sū'-i-mizāj bārid sāda: (impaired cold temperament)

- Burūdat (sensation of coldness)
- Waram (plain swelling)
- Pain without heaviness.
- *Imtilā* (reflexive congestion)

- Sakhti (rigidity)
- Kharish (Itching)
- Pain relieved by movement, massage and hot diet

Ghalba-e-dam: (predominance of blood)

- *Hararat* (temperature)
- Waja'darbānī (pulsating pain)
- Pain is stern in nature
- Pain relieved with cold and rest

Zoafe gurda wa laghari: (weakness of kidney)

- Zoafe bah (impotence)
- Darde Qutn (lumbar pain)
- Masana ke 'Alāmāt (urinary bladder symptoms)

Ghalbae Balgham Khām: (predominance of raw phlegm)

- Waja 'darbānī (pulsating pain)
- Takan (fatigue)
- Pain relieved by exercise and massage

Mumtalī rag: (vascular congestion)

- Abrupt onset
- Hypotension
- Nafth al-Dam (haemoptysis)
- Su'āl (cough)
- Buhha al-Sawt (hoarseness)
- Hararat
- Dard ki shiddat harkat ke waqt (aggrevation of pain on movement)

Rivah: (flatus)

- Waja 'mumaddida (tension pain)
- Pain worsens by taking those foods which produce flatulence

7. *Uṣūl-i-Ilāj* (Principles of treatment)

The principle underlying the management is to eliminate the māddī asbāb (causative matters) and rectification of sū'-imizāj (impaired temperament) which frequently manifests in two ways; i.e. sū'-i-mizāj māddī (abnormal substantial temperament) and sū'-i-mizāj ṣadā, '(abnormal non substantial temperament) which can be attained by tangiya māwad (evacuation of morbid matter) and Ta'dīl (restoration) [1, 8, 9, 11, ^{12]}. The renowned physicians like Razi, Ibn Sina, Akbar Arzani, Ismail Jurjani, Azam Khan and many other renowned physicians have depicted the basic principles of treatment for Waja 'al-zahr under the following headings.

- 1) *Istirahat* (Rest) [1, 5, 8, 9, 15, 17-20, 24, 26, 27]
- 2) *Izalae Sabab* (removal of the causes)^[1,8,9,12,20]
- 3) Musakkin-i-Alam (analgesics) such as Dimād (liniment), Natūl (irrigation), Takmeed (hot fomentation) etc [1, 5, 8, 9, 10, 11, 12, 18-21, 24, 26, 27]
- 4) Muḥallilat (resolvants) Counteracting or dissolving the swelling [1, 8, 10, 11, 12, 20]
- Tabdīli-i-Mizaj (change of temperament).[1,9-11]
- Treatment as per the principles of sū'-i-mizāj bārid *sāda* [1, 10, 11]
- Istifrāgh (evacuation)
- Mudirre Baul (diuretics) to manage Waja 'al-zahr if there is accumulation of mādda or Khilt balgham in the back [1, 8, 9, 11, 12]
- *Mulavvin-i-am'ā'*(laxative) and Mushil-i-Balgham (purgative) are used in accumulation of phlegm [1, 9, 11, 20].

- Munzij-e-Balgham Advia: used in case of Imtila-i-rag [1,
- *Hijāma* (cupping) [1, 9, 11, 12].
- 8) *Muqawwie aşab* (nervine tonics) [1, 9, 11]

7.1 *Ilāj bi'l Ghidhā'* (Dieto therapy)

Ibn Sina stated that *aghdhiya ḥārra* (food of hot temperament) such as walnut, coriander leaves, brinjal, milk, tea, coffee, spinach, meat, eggs, spices, Fenugreek leaves should be given to patients of Waja 'al-zahr [9,11] and restriction of cold diet is also advised [1, 8, 10].

7.2 Other therapy useful in the treatment of Waja'al-zahr

Dalk (massage), riyāḍat (exercise), Ḥammām (Turkish medicated bath), Natūl (irrigation), Dimād (liniment) and *Takmīd* (hot fomentation) are other modalities of treatment [1, 8,

8. Conclusion

In the view of above discussion, it can be stated that the classical texts of USM has vast description on Low back Pain. It seems reasonable that the traditional aetiopathology must be incorporated for prevention and treatment of LBP. It has potential to treat the LBP safely and effectively by the drug along with regimen mentioned in texts. It is also evident that the physicians of this system were aware about the aetiopathology, clinical features, management and the drug & regimens used. It is still practised in various part of the world, even in India.

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