Frozen shoulder and evidence based unani medicine: A review

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Abstract
Arthritis (Joint pain) is a common problem among geriatric peoples. There are various types of arthritis like osteoarthritis, rheumatic arthritis, gout, psoriatic arthritis, and adhesive capsulitis. Adhesive Capsulitis (Frozen shoulder syndrome), is a condition characterized by limitation of motion of the shoulder joint with pain at the extremes of motion. The incidence of frozen shoulder is approximately 3% in the general population, and peaks between 40 and 70 years of age. 10 to 36% of the individuals with diabetes mellitus are affected with this. In Unani literature the sign and symptoms of Adhesive Capsulitis or frozen shoulder syndrome are under the caption of Waja ul Mafasil, infact it is a painful or inflammatory condition affecting joints, their surrounding muscle and ligaments of shoulder which due to the alteration of humours. All such diseases of joints and associated structures are treated with certain regimens like Takmeed (Fomentation), Zinad, Tila, Roghaniyat, Dalak, Hijamat Bila Shurt, Mahjima Nariya, Fasad etc. Pharmacologically it will be treated with single (Suranjjan, Bozidan, Muquil, Asgandhi) or either compound drugs (Habbe Muqil, Majojo Chobchini, Habbe Suranjjan, Habbe Agandhi etc).

Keywords: Arthritis, wajaul mafasil, adhesive capsulitis, frozen shoulder, unani medicine

Introduction
Joints pain are more common among elderly peoples generally known as arthritis. The term arthritis refers to more than 100 diseases and conditions affecting the joints. Pain is the most prominent symptom in most people with arthritis. Pains are associated with various factors, such as; metabolic disorders (Gout, adhesive capsulitis), immunological (Rheumatoid, psoriatic arthritis), age related (Osteoarthritis), lifestyle (Gout, osteoarthritis, cervical spondylitis), occupational (Sciatica, lower back pain), infectious (Syphilitic, tubercular arthritis). One out of such condition frequently observed among elderly peoples known as adhesive capsulitis.

Synonyms for frozen shoulder
Presently various term has been used to describe adhesive capsulitis such as; frozen shoulder, pericapsulitis, peri arthritis, adherent bursitis, obliterator bursitis, shoulder periartthritis, scapulo-humeral periartthritis, adherent subacromial bursitis, hypomobile syndrome. Adhesive capsulitis is the result of a degenerative and inflammatory process affecting the articular capsule and the soft tissues of the shoulder. Adhesive Capsulitis (Frozen shoulder syndrome), is a condition characterized by limitation of motion of the shoulder joint with pain at the extremes of motion. Periarthritis of the shoulder (Adhesive capsulitis) is a well-defined condition with its phases of severe pain, increasing stiffness and gradual recovery of full movement of the shoulder. These features usually occur over a numbers of months. Periarthritis is an inflammation of the area around a joint or it is a chronic, inflammatory disorder of the shoulder and surrounding soft tissues. Obliitative bursitis is condition which characterized by progressive painful restriction of shoulder movement especially an external rotation.

The term ‘frozen shoulder’ was first used by Codman in 1934 and thereafter Neviaser noted that the pathology of this condition was actually located in the capsule of the shoulder joint and therefore called it ‘adhesive capsulitis or Frozen Shoulder Syndrome’. A stiff and painful condition of shoulder is frequently casually labeled as a frozen shoulder. This type of generalization should be avoided, as one could miss other more serious conditions that need to be treated urgently because of difficulty in movements. By taking a thorough history and performing a proper examination, the physician will expose certain facts that are typical of a...
frozen shoulder. The typical findings are pain and a global restriction of movement, with limited passive external rotation being the most notable [16].

The incidence of frozen shoulder is approximately 3% in the general population, and peaks between 40 and 70 years of age [17]. 10 to 36% of the individuals with diabetes mellitus are affected with this [18]. In frozen shoulder, the shoulder capsule thickens and become tight, stiff bands of tissue-called adhesions-developed. In many cases there is less synovial fluid in the joint which also restrict the movement of shoulder joint [19]. In clinical practice, the tendency is to label any patient with a stiff and painful shoulder as a case of frozen shoulder [20]. Adhesive capsulitis progression is classified as three (Reeves) and four (Neviaser and Neviaser) stages in below:

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<thead>
<tr>
<th>The three stages of adhesive capsulitis progression</th>
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<tr>
<td>Painful stage</td>
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<td>Frozen stage</td>
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<td>Thawing stage</td>
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Table 1: Three stages of classification (Reeves 1975)

Pain from adhesive capsulitis is usually dull or aching in nature. It is typically worse early in the course of the disease when moving the arm or shoulder [21]. It occurs spontaneously without a specific precipitating factor, usually it is idiopathic, but secondary is due shoulder injury or surgery, or may be associated with another condition such as diabetes, rotator cuff injury, cerebrovascular accident (CVA) or cardiovascular disease [22].

<table>
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<th>Stage I 0-3 months</th>
<th>Pre-adhesive stage.</th>
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<td>A fibrinous synovial inflammatory reaction is detectable only by arthroscopy. The patients usually present with signs and symptoms of impingement syndrome. The main complaint is pain and minimum deficit in range of motion is detected.</td>
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<th>Stage II 4-9 months</th>
<th>Adhesive stage.</th>
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<td>The acute synovial inflammation is apparent on physical evaluation. Arthroscopic findings demonstrated that the normal spacing between capsular fold, humeral head and biceps tendon, glenoid and humeral head diminish significantly. The patient experiences severe pain and loss of motion. (Neviaser and Neviaser (1987) do not give this stage a name but compared to other classifications it appears to be equivalent to the Adhesive stage).</td>
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<th>Stage III 10-15 months</th>
<th>Maturation stage.</th>
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<td>This stage is evident by the maturation of the inflammatory process. The dependant fold is only half its original size and adherences between various structures are formed.</td>
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<th>Stage IV 16-24 months</th>
<th>Chronic stage.</th>
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<td>Capsular adhesions are fully mature and markedly restricted. Clinically, the shoulder is „frozen.”</td>
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Table 2: Four stages of classification (Neviaser and Neviaser 1987)

Adhesive capsulitis is an extremely painful and debilitating condition leading to stiffness and disability. It typically occurs in the fifth and sixth decades of life, thus affecting individuals of working age. The disability resulting from this condition has considerable economic impact on affected individuals and society. Frozen shoulder can be either primary (Idiopathic) or secondary. Secondary frozen shoulder is defined as that associated with trauma; rotator cuff disease and impingement; cardiovascular disease; hemiparesis; or diabetes (Although some classify this in diabetics as primary frozen shoulder). The incidence of adhesive capsulitis in people with diabetes is reported to be 10% to 36%, and these tend not to respond as well to treatment as in non-diabetics [23].

The etiology and pathology of adhesive capsulitis remains unclear & understanding of pathogenesis is increasing. The patients typically demonstrate a characteristic history, clinical presentation, and recovery [24, 25]. Psychological factors, such as depression, apathy, and emotional stress, may also be associated with frozen shoulder syndrome [26].

In the modern point of view, the diseases involving the neurological, musculoskeletal, psychosomatic, and gastrointestinal system disorders [27]. Usually, three schools of thought have emerged: An inflammatory process, a fibrotic process and an inflammatory process with subsequent reactive capsular fibrosis [28].

Postoperative adhesive capsulitis is a serious complication after shoulder surgery, with an incidence of 11%. Four prognostic factors were identified by Koorevaar RC et al, for postoperative frozen shoulder: diabetes mellitus, arthroscopic surgery, specialized shoulder physiotherapy and DASH score [29].

The natural history of adhesive capsulitis is considered benign but because of the long period of pain and disability, many interventions have been considered [30]. The rationale for using modalities in patients with adhesive capsulitis includes pain relief and affecting scar tissue (collagen).

Though, the use of modalities such as ultrasound, massage, iontophoresis, and phonophoresis has not been proven to be beneficial in adhesive capsulitis [31, 32]. Interestingly, transcutaneous electrical stimulation (TENS) has been shown to significantly increase range of motion more than heat combined with exercise and manipulation [22]. Some research also suggests that low-power laser therapy is more effective than a placebo for treatment of patients with adhesive capsulitis [33]. Recently, deep heating through diathermy combined with stretching was shown to be more effective than superficial heating for treating frozen shoulder patients [34].

Out of some are commonly have been advocated for its management, including rest, analgesia, active and passive mobilization, electrotherapy, physical therapy, acupuncture, physiotherapy, oral and injected corticosteroids, capsular distension, manipulation under anaesthesia and surgical.
capsular release, muscle energy techniques [23, 35, 36]

In Unani literature the sign and symptoms of Adhesive Capsulitis or frozen shoulder syndrome are under the caption of Waja ul Mafasil, infact it is a painful or inflammatory condition affecting joints, their surrounding muscle and ligaments of shoulder which due to the alteration of humours [37, 38] It can affect almost all joints of the body [39, 40] and they named after the joint involved as Waja ul warik, Waja uz zahr, [41, 42] Waja ur rakba [39, 43] Waja us saaqaan, Waja ul waqab [39], Waja ul khasera, Tahajjure Mafasil [38, 43-45).

Management of frozen shoulder

All such diseases of joints and associated structures are treated with certain regimens like Takmeed (Fomentation), Zimad, Tila, Roghaniyat, Dalak, Hijjamat Bila Shurt, Mahjima Nariya, Fasad etc. Pharmacologically it will be treated with single or either compound drugs such as Suranjan (Cochicum autumnale), Bozidan (Pyrethrum indicum), Aqerqarha (Anacyclus pyrethrum), Sibr (Aloe vera), Baboonaa (Matricaria chamomilla), Nakhoona (Trigonella uncata), Muqil (Commiphora mukul), Kundur (Boswellia serrata), Gule Tesu (Butea frondosa), Gule Aakh (Calotropis procera), Zanjabeel (Zingerber officinale), Dhatura (Datura stramonium), Saqmoona (Convulvus scamonis), Halela Zard (Terminalia chebula), Kunjad (Sesamum indicum), Maida Lakidi (Lttsea glutinosa), Asgandh (Withania somnifera), Ushba (Humidesmus indicus), Chobchini (Smilax china), Jadwar (Delphinium denudatum), Fil Fil Daraz (Piper longum), Darchini, (Cinnamonum zeylanicum), Khulanjan (Alpinia galangal), Roghane Gul, Roghane Baboonaa, Roghane Dhatura, Roghane Haft Berg, Roghane Chaharberg, Roghane Surkh,Roghane Chanbeli, Roghane Sosan, Rogane Shibli, Roghane Kuchla, Roghane Zaitoon, Habbe Muqil, Majoon Suranjan, Majoon Chobchini, Majoon Ushba, Majoon Kundur, Majoon Azraaqai, Majoon Jograj Gugal, Habbe Suranjan, Sharbat Zanjbeel etc [46-50].

Conclusion

In Unani System of Medicine arthritis is described under the caption of disease of mafasil. Waja-ul-Mafasil is an umbrella term which is applicable for all types of joint pain. The endeavor of treatment for Waja-ul-Mafasil is to reduce morbidity and disability. The principle of treatment aims at restoring the normal temperament, and correcting the imbalance in the Khilt (humour) through Imala (Diversion of morbid material) and Istifraagh (Evacuation of morbid material). All such diseases of joints and associated structures are treated with certain regimens like Takmeed (Fomentation), Zimad, Tila, Roghaniyat, Dalak, Hijjamat Bila Shurt, Mahjima Nariya, Fasad etc. Pharmacologically it will be treated with single (Suranjan, Bozidan, Muqil, Asgandh) or either compound drugs (Habbe Muqil, Majoon Chobchini, Habbe Suranjan, Habbe Agandh etc).

Aim of this review explore the evidence based Unani Medicine for the management of Frozen Shoulder (Adhesive capsulitis). Such type of review article will be new vistas for the researcher in the field of rheumatology to reduced the burden of such type of disease.

References


