Concept of *Iraq al-nasa* (sciatica) and its management in Unani system of medicine

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Abstract

Sciatica is considered a type of neuropathic pain and is one of the commonest variations of low back pain (LBP). It is a subgroup of Low Back Pain, involving nerve root compression, and this condition has a life time prevalence of 4-5%. In Unani system of medicine, sciatica is known as *Iraq al-Nasa* and *Rengan*. Unani scholars defined *Iraq al-Nasa* (sciatica) in details and throw light about its probable patho-physiology, symptoms management and treatment as described in ancient book. In this review paper, an attempt has been made to explore the understanding of *Iraq al-Nasa* (sciatica) in the light of Unani literature. Various kind of drug, non-drug *Ilaj bil-tadbeer* (regimen therapy) practised for the management of *Iraq al-Nasa* (sciatica) are discussed in full length paper. Also, there is brief review of patho-physiology, clinical a presentation and principal of treatment are focused in this paper.

Keywords: *Iraq al-Nasa* (sciatica), Unani medicine, patho-physiology management, *Ilaj bil-tadbeer*, cupping, habbe suranjan

Introduction

The term sciatica is derived from Greek word sciatica it means hip pain [1]. Sciatica is pain in the area of distribution of the sciatic nerve (i.e. over the buttock, the posterior thigh, the posterior or posterior lateral leg, and the foot, dorsal or planter) [2]. It is a symptoms and not a disease. The symptom is pain, which starts in the back and radiates down one or both lower limbs [3]. It is known by a range of terms in the literature, such as lumbo-sacral radiculopathy, radiculopathy, nerve root pain and nerve root entrapment or irritation [4,5,6]. Most common causes of the sciatica include lumber disc herniation while bony or vascular compression, infection or malignancy is the other less common causes. There are also some rare causes for sciatic pain such as tumours, cysts or other extra spinal cause.7 Prevalence rate of sciatica differ widely among studies partly due to difference in definition of sciatic symptoms. A recent review of sciatica prevalence studies reported a substantial variation in estimate ranging from 1.6%–43% [8].

In Unani system of medicine, Various Unani scholars defined *Iraq al-Nasa* (sciatica) in details and throw light about its probable patho-physiology, symptoms management and treatment as described in ancient book. Some among them are as follows- *Iraq al-Nasa* is an Arabic term, whose literal meaning is “name of a nerve” which starts from gluteal region and continues up to the ankle, and pain associated with nerve is termed as *Iraq al-Nasa* [9]., *Ibn Sina* (980-1037AD) elaborated *Iraq al-Nasa* as one of the arthralgia characterized by hip pain which radiates toward the groin up to the ankle [10], sciatica is known as *Iraq al-Nasa* and *Rengan*. It is a subtype of *Waja-al-Mafasil* and has been described as a pain that initiates from lower back and radiates up to knee or ankle joint on the lateral aspect of the lower limbs [11,12].

Moomammad Ismaeel Jurjani (930-994 AD) described the pain which originates from ischial joint and radiates toward leg is known as *Iraq al-Nasa*. [5] *Ibn-e-Hubal Baghdadi* (d. 1213 A.D.) define *Iraq al-Nasa* as *Razi* (865-925 A.D.) with the addition as “a pain starts from hip and radiates from the lateral of the thigh up to calf muscles. [13] *Abu Marwan Abdul Malik Ibne Zuhar* (1092-1162) quoted about *Iraq al-Nasa* that the pain some time originate from foot and radiates up to upper most part of the thigh that can be affected to any of the leg with mild discomfort [13].

Pathophysiology Regarding the patho- physiology and causes of *Iraq al-Nasa*, Unani scholars mentioned that the cause of *Iraq al-Nasa* are derangement in *Akhlut* (Body fluids/humour’s) either *Khilt-e- Damwi Ghaleez* (viscid sanguineous humour) *Khilt-e- Balghami Ghaleez*
(viscid phlegmatic humour) which deposit in Mafsil-i-Warik (hip joint) and leads to pain, sometimes it may cause dislocation of joint [11]. There are involvement of maddah in Iqal-al-Nasa, this maddah may be Khilt-e-Damwi (sanguineous humour) Khilt-e-Balghami, (phlegmatic humour) Makhloot Balgham wa Safra (mixed phlegmatic bilious) [16, 17]. Abul Hasan Ali Ibne Rabban Tabri (770-780 A.D.) described Iqal al-Nasa and mentioned Safra (bile) and standing of sun as its cause.18 Some of scholar among them also explained predisposing factors of sciatica i.e. lack of exercise, indigestion, intake of excessive alcohol, weakness of ligaments, excessive coitus, chronic coryza etc [13]. Clinical Features is pain and heaviness in Mafsil-i-Warik (hip joint) and radiates up to knee or ankle joint on the lateral aspect of the lower limb, burning, numbness and paraesthesia in the same distribution, tingling, pins and needles [9], muscle weakness, slow gait, nabz zaef, sagheer and kaseef, sometime fever & diarrhoea, leg very thin and weak.16

Usool-e-Ilaaj (Principle of treatment)
Principle of treatment of sciatica in Unani system of medicine is based on basic fundamental etc.

- Tanqiya-e-Mawad-e-Fasida (Cleansing and elimination of morbid material)
- Tahlleel-e-Warm (Resolution of inflammation)
- Taskeen-e-Dard (Pain relief)

Tanqiya-e-Mawad-e-Fasida (Cleansing and elimination of morbid material)
It is done by various modes of method like Fasd (Venesection) Ishaal (Purgation), Qai (Emesis) Idrar (Diuresis). These are common method used for Tanqiya-e-Mawad-e-Fasida (elimination of morbid material) while less commonly used methods practiced are Hijamah (Cupping), Huqna (Enema).

Teheele-e-Warm (Resolution of Inflammation)
Warm (Inflammation) is resolved either by oral administration of Unani drugs or by Zimad (Poultice). Various Ilaaj bil-Tabir (regimen therapy) on affected joints are also practiced for purpose of resolution of inflammation. These are Natool (wet fermentation), Aabzan (Sitz Bath), Hamnam (Turkish Bath), Inkikab or bukhoor (steam bath),Tila (linament). These therapy are effective in resolution of inflammation as well for relieving pain too.

Taskeen-e-Dard (Pain relief)
It is done by various modes of method like Safoof (Powder), Hamnam (Turkish Bath), Zimad (Poultice), Tila (linament).

Tanqiya-e-Mawad-e-Fasida (Cleansing and elimination of morbid material)
Tanqiya-e-Mawad-e-Fasida (elimination of morbid material) is done by various therapies like Fasd (Venesection), after that munzij and mushil therapy, Huqna (enema) are advised.

Fasd (Venesection)-In case of ghalba-e-dam, Fasd-e-Basaleeq (Basilic Venesection) and Fasd-e-Iqral-nisa (Sciatic Venesection) is advocated by Unani scholar in classical literature.19 According to Ibne-Habtullahil if pain due to Khoone-Ghalaez (viscid blood) Fasd-e-Basaleeq (Basilic Venesection) same side is advisable. If dard shadeed (sever pain) and Sahar (Insomnia) venesection of opposite veins Fasd-e-saaffin (Saphenous Venesection) or Fasd-e-irqal-nisa (Sciatic Venesection) According to Maseehi Fasd-e-Basaleeq (Basilic Venesection) [20]. According to Majusi if cause of Iqal al-Nasa is derangement in hot temperament, then it is advisable to do Fasd-e-Basaleeq (Basilic Venesection) on affected side followed by light diet. After that Habb-e-Suranaan is prescribed [11]. Munzij and Mushil Various drugs are used for munzij (concoptive purpose) like Unmab (Zychphans jujuba Linn.), Shahtarar (Fumaria indica), Banafsha (Viola odorata Linn.), Takhm-e-Kasn (Cichorium intybus Linn.seed), Bekh-e-Kasni (Cichorium intybus Linn.root), Parsiyaonsha (Adiantum capillaris-verin Linn), khayar/Khira (Cucumis sativus Linn.), Kakri (Cucumis melo Linn.), Gul-e-Sarikh (Rosa damascena Mill.),Badaaayaan (Foeniculum vulgare Mill), Bekh-e-Badaiyaan (Foeniculum vulgare Mill.root), Gaozaban (Onosma bracteatum), Khaami (Althaea officinalis Linn.), Maweezah (Delphinium styphsagria) and Gulqand are utilized. After munzij therapy, then mushil therapy is started. For this purpose drugs used are Haleelah (Terminalia chebula Retz.), Afjoomoon (Cuscuta reflexa Roxb.), Turbud (Operculina turpethum Linn.). Harihigoon (Polyporus officinali), Zanjabeel (Zingiber officinalis), Sana (Cassia senna Linn.), Qurtam (Carlthamus tintorius Linn.), Amaltaas (Cassia fistula Linn.), Turanjabeen (Alhagi maurorum), and Badam Talkh (Prunus amara) [12].

In case of safra, Fasd-e-Basaleeq (Basilic Venesection) and Fasd-e-Haft Aandaan. Along with Is-Hal (Purgation) with Tabeekh (Decoction) of Haleelah (Terminalia chebula Retz.) are advocated. Afterwards, Sheera khayar (Cucumis sativus Linn) Sheera Kakri (Cucumis melo Linn.) with Sharbat-e-Nilofer, (Nymphaea alba Linn.) Aab-e-Tamar Hindi (Tamarindus indicar Linn.) with Sikanjabeen, Nasoo Tamarhindhi (Tamarindus indica Linn.) with Sharbat-e-Banafsha (Viola odorata Linn.) are prescribed [20].

According to Jurjani Ilaqi, if cause of the disease is khilt-e-Balghm, then go for Qai (Emesis) after that Advia mushila are advised like Habb-e-Sheetraj (Plumbago zeylanica Linn.) Habb-e-Mumtun. For Tanqiya-e-Mawad-e-Fasida (elimination of morbid material), Huqna is also advisable.

For huqna various drugs like Qanturiyon Daeqeeq (Erythaea centaurium), Sham-e-Hanzal (Citrdulls coloycynth), Shibt (Anethum sosva), Sirka (Vinegar) Suranjaan (Colchicum luteum), Buzidan (Orchis laxiflora Linn.), Moahi Zahraah (Verbascum thapsus Linn.) Aaqargarha (Anaclyclus pyrethrum) are used [13, 20].

Huqna (enema)- Huqna is a process used from the time of Galen for the elimination of morbid material. Decoction of various drugs are administered through the anus in this process and this leads to elimination of morbid material through purgation. Various drugs used in huqna for management of Iqal-al-Nasa are mentioned below.

Huqna (enema) Mathbook Irsa (Iris ensata) [21], Huqna (enema) Asaroon (Asarum europaeum Linn.) Maa-al-A’sal (Honey water), Huqna (enema) Hurf (Lepidium sativum) Aab (water) [16] Huqna (enema), Bekh Raasan Koflah (Inulah elenium Linn root) Aab (water As (Honey) sirka (Vinegar), Huqna (enema) Hurf (Lepidium sativum) Aab (water) Zaitoon (Olea europaea) [12], Huqna (enema), Hurf (Lepidium sativum) Hanzal (Citrdulls coloycynth) Kabar (Capparris spinosa root) Qanturiyon Douqeq (Erythaea centaurium),
Hanzal (Citrullus colocynthis), Sheertraj Hindi (Plumbago zeylanica Linn.), Qissa-al-Hinaar (Pueraaria tuberosa DC.), Majeth (Rubia cordifolia Linn.) [13, 16]. Hugn (enema) Roghan-e-Qurtum (Carthamus tinctorius Linn.), sirka (Vinegar) Shau'er (Hordeum vulgare Linn.), Hugn (Enema) Qunturyoon Daqeeq (Erythrea centaarium), Hanzal (Citrullus colocynthis), Shibt (Anethum sowa), Sabooz Gandum (Triticum aestivum Linn.), Injeer (Ficus carica Linn), Qurtum (Carthamus tinctorius Linn.), Muqiil (Commiphora mukul), mvi (Vinegar), Asl (Honey) Raughan-e-Nardan (Salix acmophylla Boiss.), Raughan-e-Qust (Saussurea hypoleuca Spreng.) [20, 21]. Hugn (Enema) Maahi Zahrarj (Verbascum thapsus Linn.), Qunturyoon Daqeeq (Erythrea centaurium), Zargand Taweel (Aristolochia longa), Bekh Kabar (Capparis spinosaroot), Khurbaz Sibyaz (Helleborus niger Linn.), Khurbaz abayz (Veratrum viride Ait.), Hurmal (Peganum harmala), Sunranjan (Colchicum autumnale Linn.), Aaqarqarha (Anacyclus pyrethrum DC.), Hanzal (Citrullus colocynthis), Maazaryoon (Daphne mezereum), Majgez Qurtum (Carthamus tinctorius Linn.), Tukhlm Shibt (Anethum sowa), Raughan-e-Nardan (Salix acmophylla Boiss.), Raughan-e-Zamuba (Zasim sambac) [11], Hugn (Enema) Kaner (Nerium oleander Mill.), post Hanzal (Citrullus colocynthis), Sham-e-Hanzal (Citrullus colocynthis), Sunranjan (colchicum luteum), Qunturyoon Daqeeq (Erythrea centaurium), Maahi Zahrarj (Verbascum thapsus Linn.), Hurf (Lepidium sativum), Bazidan (Orchis laxifloram Linn.), Hazaar Fashaan (Bryonia laciniosa Linn.) Sheetraj Hindi (Plumbago zeylanica Linn.), Tukhlm Turb (Raphanus indicus), Jirjeer (Brucea sativa Mill.), Hugn (Enema) Muri (Vinegar), Roghan Arand (Ricinus communis Linn.) [23]. Shayaaif (Suppository) Rai (Brassica nigra), Kabootar (Pigeon), Shayaaif (Suppository) Rai (Brassica nigra) Joshanda Injeer (Ficus carica Linn.) [19]. Shayaaif (Suppository) Sham-e-Hanzal (Citrullus colocynthis), Booraq Filfil (Safaidsiyah) (Piper nigrum Linn.) [16]. Fateel-e-Raasan (Inulah elenium Linn), Hurf (Lepidium sativum) Asl (Honey), Fateel-e-Hurf (Lepidium sativum) Booraq (Sodium biorate), Sakbeenaj (Ferrula persica Wild.) Aab-e-Pudinah (Mentha spicata Linn.) [22].

**Taheel-e-Warm (Resolution of inflammation)**

These drugs are applied either in the form of zimad (poultice), tila (Linimen), Nutool (Douches) Maroohk, Hamool (Suppository) etc. in Taheel-e-Warm (Resolution of Inflammation) Zimad (Poultice)– various type of zimad are discussed under classical literature which are used to apply locally for the management of Iqal-al-Nasa (sciatica). Some combination of drugs which are advocated to use as are Zimad (Poultice) Mohalili-e-Warm (Anti-inflammatory) Muqiil (Commiphora mukul) with Roghan-e-Gul 12 Zimad Karnab (Brassica olearacina), Madiak Lakdi (Litchi chinensis Sonn.), Zardi-e-baize-e-murgh (egg yolk), Zafran (Crocus sativus) [11], Zimad Baabonna (Matricaria chamomilla), Ikil-ul-malik (Trigonella uncata), Marwa (Majorana hortensis, Moench), Hubbl-Ghaar (Laurus nobilis), Hurmal (peganum harmala), Aab-e-Muqiil (Commiphora mukul) [11, 21]. Zimad Shagoofah Izkhir (Cymbopogon jwarancusa bud) [19, 22], Zimad Qust (Saussurea hypoleuca Spreng.), Baadiyaan (Foeniculum vulgare Mill.), sibr (Aloe badabensis), Aab-e-sibr Taza (Aloe barbadensis), Maweezej (Delphinium staphysagria) ward sokhta (Rosa damascena Mill.), Aaqarqarha (Anacyclus pyrethrum DC.), Hurf (Lepidium sativum), Zardar (Pins rosburghii Sarg.), Kibreet (Sulphur), Booraq Zaitoon (Olea europaea), samagh sanoobar (Pins rosburghii Sarg.) [12]. Zimad Karnab nabi (Ceratonia siliqua), Zardi-e-baize-e-murgh (egg yolk), Zafran (Crocus sativus), Ikil-ul-malik (Trigonella uncata), Baabonna (Matricaria chamomilla), Hubla (Trigonella foenum), Katnani (Althaea officinalis Linn.), Muqiil (Commpiphora mukul), Ushaq (Dorema amonicum), Jaosheer (Ferula galbaniflua), Peeh-e-Gurdeh Biz, (peri-renal fat goat), Mukh Saaq gau (murrow of calf muscles cow), Byee's wax [11, 12]. Zimad Kadu (Lagenaria siceraria), Asl (Honey), sirka (Vinegar) [12], Zimad Khardal (Brassica nigra), Injeer (Ficus carica Linn) [16]. Bukhoor-e-Maryam (Martyanna annua Linn.), sirka (Vinegar), Zimad Anjadaan (Ferula foetida), Roghan-e-Irsa (iris ensata oil) or Mom (Byee’s wax) or Raughan-e-Hina (Lawsonia inermis Linn oil) [12]. Zimad Satar (Satureja hartensis), Gandum (Triticum aestivum Linn.) [24]. Zimad Maweezej (Delphinium staphysagria), ward sokhta (Rosa damascena Mill.), Aaqarqarha (Anacyclus pyrethrum DC.), Hurf (Lepidium sativum), Zardar (Pins rosburghii), Kibreet (Sulphur), Booraq, Zaitoon (Olea europaea), samagh sanoobar (Pins rosburghii Sarg.). Zimad Karnab nabi (Ceratonia siliqua), Zardi-e-baize-e-murgh (egg yolk), Zafran (Crocus sativus). Zimad Ikil-ul-malik (Trigonella uncata), Baabonna (Matricaria chamomilla), Hubla (Trigonella foenum), Katnani (Althaea officinalis Linn.), Muqiil (Commpiphora mukul), Ushaq (Dorema amonicum), Jaosheer (Ferula galbaniflua) [11, 12].

Nutool (Douches/Wet fermentation)–it is a process in which decoction of Taheel-e-Warm (anti-inflammatory) are poured from a particular height at the effected site or site of pain. This leads to taheel (resolution) of morbid material from the site. For the purpose of nutool (Douches), in place of decoction of drugs, anti-inflammatory oils are also used for the same purpose. Various combination of drugs used for nutool (Douches) are Nutool (Douches) Baabonna (Matricaria chamomilla), Ikil-ul-malik (Trigonella uncata), Qunturyoon Daqeeq (Erythrea centaarium), Post Bekh-e Karafis (Apium graveolens Linn.), Haashaa (Thymus serpyllum Linn.), Shibt (Anethum sowa), Satar (Satureja hartensis), Handquaq (Trigonella corunculata Linn.) [11]. Nutool (Douches) Hurmal (Peganum harmala), Khardal (Brassica nigra) [18], Nutool (Douches) muhallil Satar (Satureja hartensis) Aab(water) [22].

**Tila (Liniment)-tila is prepared by paste of various Taheel-e-Warm anti-inflammatory drugs with combination of anti-inflammatory roghan (oil) and are used locally at the site of pain for the management of irq-al-Nasa (sciatica). Various combination of drugs used as tila are- Tila (Liniment)-Baabonna (Matricaria chamomilla), Ikil-ul-malik (Trigonella uncata), Qunturyoon Daqeeq (Erythrea centaarium), Post Bekh-e Karafis (Apium graveolens Linn.), Haashaa (Thymus serpyllum Linn.), Shibt (Anethum sowa), Satar (Satureja hartensis), Handquaq (Trigonella corunculata), Sirka (Vinegar), Raughan-e-Hina (Lawsonia inermis Linn), Natroon (Sodium carbonate), Qaaalqah (Elettaria cardamomum), Zufa Ratab (Nepta orientalis) (11) Tila (Liniment) Pushkal-e-Baz (Goat) with Sirka (Vinegar) [16].

**Taskeen-e-Dard (Pain relief)**

Safoor Majusi (Powder) Sana (Cassia senna Linn), Sheetraj

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Conclusion

Unani system is well known for its comprehensive and holistic approach in the management of diseases. System advocates various kind of therapies for the management of pain. There is wide range of drug, non-drug therapy which are advocated in classical literature in the management of Irr al-Nasa (sciatica). Munzij and mushil theory is core of treatment for almost all disorders. Along with these principal of munzij and mushil, fasd (vesication), Huqna (enema) Natoool (wet fermentation), Aabzan (Sitz Bath), Hammaam (Turkish Bath), Inkibab or bukhoor (steam bath),Tila (linament), Zimad (Poulitice) and many therapies are also practised for this purpose. For treating Irr al-Nasa (sciatica), various drugs are mentioned, practised since long. For future prospective, these drugs need re-validation on scientific parameters.

References
