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Concept of *Irq 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 *Irq al-Nasa* and *Rengan*. Unani scholars defined *Irq 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 *Irq al-Nasa* (sciatica) in the light of Unani literature. Various kind of drug, non-drug *Ilaj bil-tadbeer* (regimenal therapy) practised for the management of *Irq 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: *Irq 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 radicular syndrome, 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 *Irq 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- *Irq 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 *Irq al-Nasa* [9]. *Ibne Sina* (980-1037AD) elaborated *Irq 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 *Irq al-Nasa* and *Rengan*.. It is a subtype of *Waja-ul-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].

Mohammad Ismaeel Jurjani (930-994 AD) described the pain which originates from ischail joint and radiates toward leg is known as *Irq al-Nasa*. ¹³ *Ibn-e-Hubal Baghdadi* (d. 1213 A.D.) define *Irq 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. ¹⁴ *Abu Marwan Abdul Malik Ibne Zuhar* (1092-1162) quoted about *Irq 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 ^[15].

Pathophysiology Regarding the patho- physiology and causes of *Irq al-Nasa*, Unani scholars mentioned that the cause of *Irq al-Nasa* are derangement in *Akhlat* (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 Irq-al-Nasa, this maddah may be Khilt-e- Damwi. (sanguineous humours) 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 Irq 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 zaeef, sagheer and kaseef, sometime fever & diarrhoea, leg very thin and weak.16

Usool-e-Ilaj (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)
- *Tahleel-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).

Tehleel-e-Warm (Resolution of Inflammation)

Warm (Inflammation) is resolved either by oral administration of Unani drugs or by Zimad (Poultice). Various Ilaj bil-Tdbir (regimenal therapy) on affected joints are also practiced for purpose of resolution of inflammation. These are Nutool (wet formentation), Aabzan (Sitz Bath), Hammam (Turkish Bath), Inkibab 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), *Hammam* (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 mushily therapy, Huqna (enema) are advised.

Fasd (Venesection)-In case of ghalba-e-dam, Fasd-e-Basaleeq (Basillic Venesection) and Fasd-e-Irq-un-nisa (Sciatic Venesection) is advocated by Unani scholar in classical literature. According to Ibne-Habtullah if pain due to Khoone-Ghaleez (viscid blood) Fasd-e-Basaleeq (Basillic Venesection) same side is advisable. If dard shadeed (sever pain) and Sahar (Insomnia) venesection of

opposite veins Fasd-e-saafin (Saphenous Venesection) or Fasd-e-Irq-un-Nisa (Sciatic Venesection), According to Maseehi Fasd-e-Baasaleeq (Basillic Venesection) [20]. According to Majusi if cause of Irq al-Nasa is derangement in hot temperament, then it is advisable to do Fasd-e-Baasaleeq (Basillic Venesection) on affected side followed by light diet. After that *Habb-e-Suranjan* is prescribed [11]. Munzij and Mushil Various drugs are used for munzij (concoctive purpose) like Unnab (Zizyphus jujuba Linn.), Shahtarai (Fumaria indica). Banafsha (Viola odorata Linn.). Tukhm-e-Kasni (Cichorium intybus Linn.seed). Bekh-e-Kasni (Cichorium intybus Linn.root), Parsiyaonsha (Adiantum capillaris-veneris Linn), khayar/Khira (Cucumis sativus Linn.), Kakri (Cucumis melo Linn.), Gul-e-Surkh (Rosa damascena Mill.),Baadiyaan (Foeniculum vulgare Mill), Bekh-e- Baadiyaan (Foeniculum vulgare Mill.root), Gaozaban (Onosma bracteatum), Khatmi (Althaea officinalis Linn.), Maweezaj (Delphinium staphysagria) and Gulgand are utilized.

After munzij therapy, then mushil therapy is started. For this purpose drugs used are Halelah (Terminalia chebula Retz.), Aftimoon (Cuscuta reflexa Roxb.), Turbud (Operculina turpethum Linn.), Ghariqoon (Polyporus officianali), Zanjabeel (Zingiber officinale), Sana (Cassia senna Linn.), Qurtum (Carthamus tinctorius Linn.), Amaltaas (Cassia fistula Linn.), Turanjabeen (Alhagi maurorum), and Badam Talkh (Prunus amara) [12].

In case of safra, Fasd-e-Baasaleeq (Basillic Venesection) and Fasd-e-Haft Andaam. Along with Is-Hal (Purgation) with Tabeekh (Decoction) of Halelah (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 indica Linn.) with Sharbat-e-Banafsha (Viola odorata Linn.) are prescribed [20].

According to Jurjani Ilaqi, if cause of the disease is khlite-e-Balghm, then go for Qai (Emesis) after that Advia mushila are advised like Habb-e-Sheetraj (Plumbago zeylanica Linn.) Habb-e-Mumtin. For Tanqiya-e-Mawad-e-Fasida (elimination of morbid material), Huqna is also advisable. For huqna various drugs like Qanturiyoon Daqeeq (Erythaea centaurium), Sham-e-Hanzal (Citrullus colocynthis), Shibt (Anethum sowa), Sirka (Vinegar) Suranjaan (Colchicum luteum), Buzidan (Orchis laxiflora Lam.) Maahi Zahraj (Verbascum thapsus Linn.) Aaqarqarha (Anacyclus 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 Irq-al-Nasa are mentioned below.

Huqn (enema) Matbookh Irsa (Iris ensata) [21], Huqn (enema) Asaaroon (Asarum europaeum Linn.) Maa-al-A'sal (Honey water), Huqn (enema) Hurf (Lepidium sativum) Aab (water) [16] Huqna (enema), Bekh Raasan Koftah (Inulah elenium Linn root) Aab (water Asl (Honey) sirka (Vinegar), Huqn (enema) Hurf (Lepidium sativum) Aab (water) Zaitoon (Olea europaea) [22], Huqn (enema), Hurf (Lepidium sativum) Hanzal (Citrullus colocynthis) Kabar (Capparis spinosa root) Qanturiyoon Daqeeq (Erythaea centaurium),

Hanzal (Citrullus colocynthis), Sheetraj Hindi (Plumbago zevlanica Linn.), Oissa-al-Himaar (Pueraria tuberosa DC.), Majeeth (Rubia cordifolia Linn.) [13, 16], Huqn (enema) Roghan-e-Qurtum (Carthamus tinctorius Linn.), sirka (Vinegar) Sha'eer (Hordeum vulgare Linn.), Huqn (Enema) Qanturiyoon Daqeeq (Erythaea centaurium), Hanzal (Citrullus colocynthis), Shibt (Anethum sowa), Saboos Gandum (Triticum aestivum Linn.), Injeer (Ficus carica Linn), Qurtum (Carthamus tinctorius Linn.), Muqil (Commiphora mukul), muri (Vinegar), Asl (Honey) Raughan-e-Nardan (Salix acmophylla Boiss.), Raughan-e-Qust (Saussurea hypoleuca Spreng.)n [20, 22]. Huan (Enema) Maahi Zahraj (Verbascum thapsus Linn.), Qanturiyoon (Erythaea centaurium), Zarawand Taweel (Aristolochia longa), Bekh Kabar (Capparis spinosaroot), Kharbaq Siyah (Helleborus niger Linn.), Kharbaq abyaz (Veratrum viride Ait.), Hurmul (Peganum harmala), Suranjan (Colchicum autumnale Linn.), Aagargarha (Anacyclus pyrethrum DC.), Hanzal (Citrullus colocynthis), Maazaryoon (Daphne mezereum), Maghz (Carthamus tinctorius Linn.), Tukhm Shibt (Anethum sowa), Raughan-e-Nardan (Salix acmophylla Boiss.), Raughan-e-Zambaqu (Jasminum sambac) [11], Huqn (Enema) Kaner (Nerium oleander Mill.), post Hanzal (Citrullus colocynthis), Sham-e-Hanzal (Citrullus colocynthis), Suranjan (colchicum luteum), Qanturiyoon Daqeeq (Erythaea centaurium), Maahi Zahraj (Verbascum thapsus Linn.), Hurf (Lepidium sativum), Buzidan (Orchis laxiflora Lam.), Hazaar Fashaan (Bryonia laciniosa Linn.) Sheetraj Hindi (Plumbago zevlanica Linn.), Tukhm Turb (Raphanus indicus), Jirieer (Brucea sativa Mill.), Huan (Enema) Muri (Vinegar), Roghan Arand (Ricinus communis Linn.) [23]. Shayaaf (Suppository) Rai (Brassica nigra). Kabootar (Pigeon), Shayaaf (Suppository) Rai (Brassica nigra) Joshanda Injeer (Ficus carica Linn) [19]. Shayaaf (Suppository) Sham-e-Hanzal (Citrullus colocynthis), Booraq Filfil (Safaid/Siyah) (Piper nigrum Linn.) [16]. Fateel-e- Raasan (Inulah elenium Linn), Hurf (Lepidium sativum) Asl (Honey), Fateel-e- Hurf (Lepidium sativum) Booraq (Sodium biborate), Sakbeenaj (Ferula persica Willd.) Aab-e- Pudinah (Mentha spicata Linn.) [22].

Tahleel-e-Warm (Resolution of inflammation)

These drugs are applied either in the form of zimad (poultice), tila (Linimen), Nutool, (Douches) Marookh, Hamool (Suppository) etc. in Tahleel-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 *Irq-al-Nasa* (sciatica). Some combination of drugs which are advocated to use as (Poultice) Mohallil-e-Waram Zimad inflammatory) Muqil (Commiphora mukul) with Roghan-e-Gul 12. Zimad Karnab (Brassica olearacia), Maida Lakdi (Litchi chinensis Sonn.), Zardi-e baize-e- murgh (egg yolk), Zafran (Crocus sativus) [11], Zimad Baaboona (Matricaria chamomilla), Iklil-ul-malik (Trigonella uncata), Marwa (Majorana hortensis, Moench), Habb-ul-Ghaar (Laurus nobilis), Hurmul (peganum harmala), Aab-e-Muqil (Commiphora mukul) [11, 21]. Zimad Shagoofah Izkhir (Cymbopogon jwarancusa bud) [19, 22]. Zimad Qust (Saussurea hypoleuca Spreng.), Baadiyaan (Foeniculum vulgare Mill.), sibr (Aloe barbadensis), Aab-e-sibr Taza (Aloe barbadensis), Maweezaj (Delphinium staphysagria) ward sokhta (Rosa damascena Mill.), Aaqarqarha

(Anacyclus pyrethrum DC.), Hurf (Lepidium sativum), Barzad (Pinus roxburghii Sarg.), Kibreet (Sulphur), Booraq Zaitoon (Olea europaea), samagh sanoobar (Pinus roxburghii Sarg.) [12]. Zimad Karnab nabti (Ceratonia siliqua), Zardi-e baize-e- murgh (egg yolk), Zafran (Crocus sativus), Iklil-ul-malik (Trigonella uncata), Baaboona (Matricaria chamomilla), Hulba (Trigonella foenum), Khatmi (Althaea officinalis Linn.), Muqil (Commiphora mukul), Ushaq (Dorema ammoniacum), Jaosheer (Ferula galbaniflua). Peeh-e-Gurdah Buz. (peri-renal fat goat). Mukh Saaa gao (marrow of calf muscles cow). Bee's wax [11, 12]. Zimad Kadu (Lagenaria siceraria), Asl (Honey), sirka (Vinegar) [22]. Zimad Khardal (Brassica nigra), Injeer (Ficus carica Linn) [16]. Bakhoor-e-Maryam (Martynia annua Linn.), sirka (Vinegar), Zimad Anjodaan (Ferula foetida), Roghan-e-Irsa (Iris ensata oil) or Mom (Bee's wax) or Raughan-e-Hina (Lawsonia inermis Linn oil) [12]. Zimad Satar (Satureja hartensis), Gandum (Triticum aestivum Linn.) [24]. Zimad Maweezaj (Delphinium staphysagria), ward sokhta (Rosa damascena Mill.), Aaqarqarha (Anacyclus pyrethrum DC.), Hurf (Lepidium sativum), Barzad (Pinus roxburghii), Kibreet (Sulphur), Booraq, Zaitoon (Olea europaea), samagh sanoobar (Pinus roxburghii Sarg.). Zimad Karnab nabti (Ceratonia siliqua), Zardi-e baize-e- murgh (egg yolk), Zafran (Crocus sativus). Zimad Iklil-ul-malik (Trigonella uncata), Baaboona (Matricaria chamomilla), Hulba (Trigonella foenum), Khatmi (Althaea officinalis Linn.), Muqil (Commiphora mukul), Ushaq (Dorema ammoniacum), Jaosheer (Ferula $galbaniflua)^{[1\hat{1}, 1\hat{2}]}.$

Nutool (Douches/Wet formentation)-it is a process in which decoction of Tahleel-e-Warm (anti-inflammatory) are poured from a particular height at the effected site or site of pain. This leads to tahleel (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) Baaboona (Matricaria chamomilla), Iklil-ul-malik (Trigonella uncata), Qanturiyoon Dageeg (Erythaea centaurium), Post Bekh-e Karafs (Apium graveolens Linn.), Haashaa (<u>Thy</u>mus serpyllum Linn.), Shibt (Anethum sowa), Satar (Satureja hartensis), Handquqa (Trigonella corniculata Linn.)11. Nutool (Douches) Hurmul (Peganum harmala), Khardal (Brassica nigra) [18]. Nutool (Douches) muhallil Satar (Satureja hartensis) Aab(water) [22].

Tila (Liniment)-tila is prepared by paste of various Tahleele-Warm anti- inflammatory drugs with combnation of antiinflammatory 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)-(Matricaria Baaboona chamomilla). Iklil-ul-malik (Trigonella uncata), Qanturiyoon Daqeeq (Erythaea centaurium), Post Bekh-e Karafs (Apium graveolens Linn.), Haashaa (Thymus serpyllum Linn.), Shibt (Anethum sowa), (Satureja hartensis), Handquqa (Trigonella corniculata), Sirka (Vinegar), Raughan-e-Hina (Lawsonia inermis Linn), Natroon (Sodium carbonate), Qaaqulah (Elettaria cardamomum), Zufa Ratab (Nepta orientalis) [11] Tila (Liniment) Pushkal-e-Buz (Goat) with Sirka (Vinegar)

Taskeen-e-Dard (Pain relief)

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

Hindi (Plumbago zeylanica Linn.), Zafran (Crocus sativus), Oand Safed (Granular sugar) [12, 27]. Zimad (Poultice) musakkin Arand Muqashshar (Ricinus communis Linn. Sheathless) sirka (Vinegar), Asl (Honey), Zimad (Poultice) Kadu (Lagenaria siceraria) Asl (Honey), sirka (Vinegar) [22]. Sandal Surkh (Pterocarpus santalinus Linn.), Kishneez (Coriandrum sativum Linn.) [20] Zimad Tukhm-e- Kataan (Linum usitatissimum), Baaboona (Matricaria chamomilla), (Anethum sowa) Raughan-e-Shibt (Colchicum luteum), Bazr-ul-Bani (Hvoscvamus niger Linn), Oust arabi (Costus arabicus Linn.), Baaboona (Matricaria chamomilla), Mastagi (Pistacia lentiscus Linn.), Meea'-e-Saailah (Liquidambar orientalis Mill.), Jundbedastar (Castorium), Tila (Liniment) Musakkin Raughan-e-Shibt (Anethum sowa), Gul Kunjad (Sesamuam indacum) [13]. Tila (Liniment) Muharrik-e-A'saab (Nerve Stimulant), Roghan-e- Farfiyun (Euphorbia resinifera oil), Jundbedastar (Castorium), Meea'-e-Saailah (Liquidambar orientalis Mill.) [25]. Afyoon (Papaver somniferum), Jundbedastar (Castorium), Zafran (Crocus sativus) 26. Hulba (Trigonella foenum), Sirka angoori (Vitis vinifera Linn. Vinegar), Shahad (honey) [16].

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 *Irq al-Nasa*. (sciatica). *Munzij and mushil* theory is core of treatment for almost all disorders. Along with these principal of *munzij and mushil, fasd* (venesaction), *Huqna* (enema) *Nutool* (wet formentation), *Aabzan* (Sitz Bath), *Hammam* (Turkish Bath), *Inkibab or bukhoor* (steam bath), *Tila* (linament), *Zimad* (Poultice) and many therapies are also practised for this purpose. For treating *Irq al-Nasa*. (sciatica). various drugs are mentioned, practised since long. For future prospective, these drugs needs re-validation on scientific parameters.

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