

Case Report

Management of *Irq-Un-Nasa (Sciatica)* by *Fasd* (Venesection): A Case ReportFatima Khan^{1*}, Mohd Nayab², Abdul Nasir Ansari³^{1*}Assistant Professor, Department of Ilaj Bit Tadbeer, Inamdar Unani Medical College & Hospital, Kalaburagi, India,²Assistant Professor, ³Professor and Head, Department of Ilaj Bit Tadbeer, National Institute of Unani Medicine, Bangalore, India

ABSTRACT

Objectives: Sciatica is a musculoskeletal pain sensed in the leg along with the distribution of the sciatic nerve, which is sometimes accompanied by low back pain and is most commonly caused by a disc herniation. In the Unani system of Medicine, *Irq-un-Nasa (Sciatica)* is defined as the pain which starts from the hip joint and descends towards the foot. It is a type of *Waja-ul-Mafasil* which is developed due to the accumulation of *Khilt-e-Dam* or *Khilt-e-Balgham ghaleez* in the hip joint. The conventional system of Medicine offers several medications and surgeries to manage sciatica with limited clinical evidence of effectiveness. These cases aim to provide insight into the effects of *Fasd* (Venesection) in *Irq-un-Nasa*.

Case Presentation: *Fasd* was performed in the *saphena* minor vein of two clinically diagnosed patients with sciatica after the initial assessment. Two sittings of *Fasd*, once a week in each patient, were performed, followed by telephonic assessments for two months. The intensity of sciatic pain reduced with subsequent sittings of *Fasd*, and there was no recurrence of any symptoms and signs again during complete follow-up.

Conclusion: Based on the results of the present case report, it appears that such cases of *Irq-un-Nasa* can be managed with *Fasd*, and the quality of life of such patients can also be improved.

Keywords *Irq-un-Nasa*, Pain, *Sciatica*, *Fasd*, Venesection

1. INTRODUCTION

In the literature, so many synonyms for sciatica are used, such as lumbosacral radicular syndrome, ischia, nerve root pain, and nerve root entrapment (Koes et al., 2007). Sciatica is a musculoskeletal pain sensed in the leg along with the distribution of the sciatic nerve, which runs from the lower back through the buttock to the posterior thigh and into the postero-lateral lower leg and foot; sometimes accompanied by low back pain (Ebraheim et al., 2017). The cumulative frequency of this disorder is approximately 13-40 % (Stafford et al., 2007). Causes of sciatica are impingement of L4, L5, S1 nerve (i.e., from a herniated disc) (Longo et al., 2012) spinal stenosis, ankylosing spondylitis, osteoporotic fracture, infection, tumors, age-related degenerative changes in discs and facet joints, malignant diseases in the pelvis and tuberculosis of vertebral bodies (Douglas et al., 2005). The most common cause is disc herniation, which gives pressure on nerve roots (Colledge et al., 2002). Risk factors for acute sciatica are personal factors (Age 45-64 years, increasing risk with height, smoking, mental stress) and occupational factors (Strenuous physical activity) (Koes et al., 2007). Symptoms include constant aching pain felt in the lumbar region, which radiates to

the buttock, thigh, calf, and foot (Colledge et al., 2002). Pain is often associated with tingling, numbness, and weakness of the leg; it may be sudden in onset and then persists for days or weeks (Qin et al., 2015). Sciatica is diagnosed mostly through history and physical examination, which largely depends on neurological testing. The most applied investigation is the straight leg raising test or Lasègue's sign. Sciatica is usually treated by conventional therapies either pharmacologically or surgically or sometimes, both.

In the Unani system of Medicine, *Irq-un-Nasa* is defined as the pain which starts from the hip joint and descends towards the foot (Jurjani, 2010). Hippocrates (Buqrat) was alleged, the first physician to use the term "sciatica" deriving from the Greek "*ischios*," hip. Sciatica was generally called pain in the pelvis and leg (Pearce, 2007). It is a type of *Waja-ul-Mafasil* characterized by hip pain radiating towards the back of the thigh up to the ankle. As pain turns chronic, it radiates more towards the lower side of the leg according to the morbid matter involved and reaches up to the toes of the foot (Sina, 2010; Razi, 2004). The etiologies are *Khilt-e-Dam* or *Khilt-e-Balgham ghaleez*, which get accumulated in the hip joint, but most of the time, the cause is *Khilt-e-Balgham* or a mixture of *Khilt-e-Balgham wa Safra* (Razi, 2004; M. A. Khan, 2011; Bagdadi, 2007). According to *Ibn-e-Sina*, the cause lies in the hip joint and sometimes in *Asab-e-Ariza* (sciatic nerve) itself (Sina, 2010). According to *Zakariya Razi*, it is produced due to the accumulation of chyme (*Kaimoos*) in the joints causing congestion (*Imtila and Tamaddud*), and the patient feels pain (Razi, 2004). The principal treatment of *Irq-un-Nasa* in Unani Medicine varies according to the underlying etiology and derangement in temperament (*Mizaj*) (Rushd, 1987).

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Evacuation (*Istefragh* or *Tanqia*) is necessary if morbid *khilt* is dominant either quantitatively or qualitatively (Rushd, 1987; Nafees, 1934). For *Irq-un-Nasa*, there are different kinds of regimens given, which are more effective with less adverse effects and, at the same time, cost-effective like *Hijama* (Cupping), *Irsal-e-Alaq* (Leech therapy), *Dalk* (massage), *Abzan* (Sitz Bath), and *Fasd* (Venesection). Almost all great Unani physicians advocated *Fasd* in the management of *Irq-un-Nasa*.

Phlebotomy, (also known as bloodletting or Venesection) is a major therapeutic procedure that has been performed by physicians in various civilizations since antiquity up to the present. Therapeutic phlebotomy is currently approved for three main indications: hemochromatosis, polycythemia vera, and porphyria cutanea tarda. Small volume phlebotomy (250 ML) was demonstrated by Humphrey and his colleagues, it could be safely done once every two months to lower the hematocrit (Assi and Baz, 2014).

In the Unani system of Medicine, the importance and effectiveness of *fasd* have been elaborated by many Unani physicians. Several important classical books were written by Unani scholars and highlighted the therapeutic values of *fasd*. Author of *Al-Umdah Fil-Jarahat* has proposed the best and most satisfactory definition as "*Fasd* is a type of *Tafarruq-i-Ittisal* (loss of continuity) that is done in vein intentionally by any specialized instrument (Maseehi, 2000). According to Ibn-e-Hubal Baghdadi, "venesection is a process of complete evacuation which drains out blood and extravagant humour mixed with blood from the veins" (Baghdadi, 2007). *Qurshi* also defined it as a procedure in which blood is drained out of the body by giving an incision from a sharp instrument (*Qurshi*, 2011). *Hakeem Akbar Arzani* defined "Venesection as complete or comprehensive evacuation, intentionally done to drain *Akhlat* by *Tafarruq-i-Ittisal* of vessels. Venesection is a general elimination of humours. It removes excess humour in the same proportion as is present in blood vessels. Many ancient physicians like *Ibn-e-Sina* (*Al-Qanoon*), *Zakariya Razi* (*Kitabul Hawi* & *Kitabul Mansoori*), *Ibn Abbas Majusi* (*Kamil-us-Sana*), *Al Jurjani* (*Zakhira Khawarzam Shahi*), *Ibn Hubal Bagdadi* (*Kitabul Mukhtar*), *Azam Khan* (*Akseer-e-Azam*), *Qarshi* (*Jam-ul-Hikmat*), *Rabban Tabri* (*Firdous-ul-Hikmat*), *Allama Burhanudin Nafees* (*Kulliyat-e-Nafeesi*), *Akbar Arzani* (*Tibb-e-Akbar*), *Ajmal Khan* (*Haziq*) and *Mansoor-ul-Hasan Al Qamri* (*Gina Muna*) mentioned *Fasd* in the management of *Irq-un-Nasa*.

2. CASE DESCRIPTION

2.1. Case-1

This patient was a 49-year-old male businessman who attended the outpatient department of the National Institute of Unani Medicine on 17/09/2021 with complaints of pain in the lower back radiating to the left lower leg up to a foot for 10 days. He had no history of DMT₂, Hypertension, or trauma. His Hb% was 14.2gm%, Bleeding Time (BT) 2 minutes, Clotting Time (CT) 3 minutes. His vitals were stable (BP = 130/80 mmHg, Pulse rate = 82/min, Respiratory rate = 20/min, Temperature = 98.5°F). Viral markers (HIV I and II, HbsAg) were carried out and found negative and non-reactive. He showed his previous investigation reports in which MRI of the lumbosacral spine revealed diffuse bulge of L5-S1 disc with central and left para-central inferior extrusion indenting thecal sac, impinging on left traversing S1 nerve root compromising neural foramina and lumbar spondylosis. X-ray lumbosacral spine showed lumbar spondylosis. His ECG

was normal. This hemodynamically stable patient was diagnosed with a case of sciatica based on general and specific (SLR - 30°) examinations.

2.2. Case-2

This patient was a 46-year-old male who attended OPD of the National Institute of Unani Medicine on 06/10/2021 with complaints of severe pain in the lower back radiating to the right buttock, thigh, calf, and right foot for four days with numbness and tingling sensation. He was not able to sit or walk properly. He was a tailor by occupation. He had no history of DMT₂, Hypertension, or trauma. His Hb% was 13.7gm%, BT 2 minutes, CT 3 minutes. His vitals were stable (BP = 110/80 mmHg, Pulse rate = 86/min, Respiratory rate = 20/min, Temperature = 98.6°F). Viral markers (HIV I and II, HbsAg) were carried out and found negative and non-reactive. X-ray lumbosacral spine showed lumbar spondylosis. His ECG was normal. The general examination of this hemodynamically stable patient was performed, including an SLR of the right leg, which was found positive at 30° with loss of ankle jerk and diagnosed as a case of sciatica.

3. INTERVENTION

3.1. Case-1

After the assessment, the patient was made to sit comfortably, and vitals of the patient were recorded, then tourniquet was applied above the ankle joint to occlude the blood flow to engorge the left saphena minor vein and make it prominent. Then the segment of the vein intended for the puncture was cleaned with a spirit swab; a 20G needle was carefully inserted to let the blood flow out freely to about 22 ml (which is within IRB guideline's limit) (Fig. 1 & Fig. 2). After the procedure, the needle was removed carefully, followed by a proper antiseptic dressing. Based on the hemoglobin status (14.2gm %) and capillary refilling test, about two sittings of *Fasd* (Venesection) were done once a week for two weeks.



Fig. 1



Fig. 2

3.2. Case-2

After the assessment, the patient was made to sit comfortably, and vitals of the patient were recorded, then tourniquet was applied above the ankle joint to occlude the blood flow to engorge the right saphena minor vein and make it prominent. Then it was cleaned with a spirit swab, and a 20G needle was carefully inserted to let the blood flow out freely to about 17 ml (which is within IRB guideline's limit), (Fig. 3 & Fig. 4). After the procedure, the needle was removed carefully, followed by the proper antiseptic dressing. Vital signs were reassessed, and the patient was monitored for adverse events for 15 minutes until stable. Based on hemoglobin status (13.7 gm %) and capillary refilling test, about two sittings of *Fasd* (Venesection) were done once a week for two weeks.

Telephonic follow-ups were done for two months and were instructed that if they experienced any recurrences of symptoms in the future, they should immediately report to the hospital, but there was no recurrence of any of the signs and symptoms again.



Fig. 3



Fig.4

4. RESULTS

The assessment of the patients was done based on the Visual Analogue Scale (VAS) for pain and Oswestry Disability Index (ODI) for quality of life (Mannion et al., 2007; Mehra et al., 2008) and the results are plotted (Table.1)

Before the first sitting, the VAS score was eight, and ODI was 24 in case 1, whereas the VAS score was ten and ODI 48 in case 2. After the second sitting, the VAS score was 0 and ODI 3 in case 1, whereas the VAS score was one and ODI 3 in case 2. There was a 100% improvement in VAS for pain in Case 1, whereas 90% improvement in case 2. 87.5% improvement was observed in ODI in case 1, while the improvement was 93.75% in case 2.

Table 1. Shows the results according to VAS and ODI

Assessment parameters	Before 1 st sitting		After 2 nd sitting		Improvement in % age	
	Case 1	Case 2	Case 1	Case 2	Case 1	Case 2
VAS	8	10	0	1	100%	90%
ODI	24	48	3	3	87.5%	93.75%

5. DISCUSSION

Sciatica refers to sciatic nerve pain or discomfort. The nerve runs down to the foot from the lower part of the spinal cord, down the back of the leg. Injury to or pressure on the sciatic nerve can cause sciatica's characteristic pain: a sharp or burning pain that radiates from the lower back or hip, possibly following the sciatic nerve's path to the foot. It is one of the commonest neuralgic pain creating difficulty and problems in activities of daily living (Stafford et al., 2007). So, the need of the hour is to develop a treatment that can provide long-term relief from the symptoms without any side effects. In the *Unani* system of Medicine, *Irq-un-Nasa* is defined as the pain which starts from the hip joint and descends towards the foot. According to the *Unani* system of Medicine, health can be achieved by doing *Istefragh* (removal of the bad humours which get accumulated in the body) through any of the regimens like Venesection, purging, emesis, diaphoresis, leeching, hijama, etc. With the advances made in the medical sciences, *Fasd* can work wonders in such circumstances. Considering the above-mentioned aspects, *Fasd* (Venesection) was selected to evacuate morbid

humours from the blood vessels and hence found effective in these cases. The possible reason by which *Fasd* has worked is that:

In the Middle Ages and renaissance, bloodletting from the "sciatic vein" was widely done as a treatment for sciatic pain. Bloodletting serves to eliminate "bad fluids," i.e., pathogenic agents that benefit or induce the pathological state of disease in the body. The rationale for selecting Venesection's "*saphena* minor" vein to treat sciatic pain was based on the notion that bad fluids preferably collect at the lowest, most peripheral, and "external" sites (Kovacs et al., 2002). *Fasd* subsided the pain, which was quite significant in both the patients, perhaps due to the expulsion of morbid materials, pain-producing substances, and relieving the congestion. Different mechanisms explain the effects of *Fasd*. After performing *Fasd*, the hydrostatic pressure of capillaries of that local area becomes suddenly decreased, resulting in the movement of waste metabolites and other morbid humours to increase considerably from tissue spaces to the capillaries. It also increases the perfusion and relieves the engorgement of veins. Hence, relief of this pressure, which is thought to be due to obstruction of venous outflow, can

relieve pain. Therapeutic intervention of *Fasd* releases this pressure and helps relieve pain. Furthermore, this procedure is thought to clear out the pain-producing indigenous chemical stimuli (Algogenic substances) such as serotonin, substance P, Bradykinin, Prostaglandins, and Histamines. Also worth noting here is that the application of *Fasd* (Venesection) enhances the local blood flow, and removes the stasis, which helps in normalizing the local pH. It checks the rouleaux formation and clears the already formed clumps, decreases the viscosity, and eliminates the acidosis. Hence, it helps relieve pain, stiffness, and weakness (S. A. Khan et al., 2012).

Telephonic follow-ups were done for about two months. However, no recurrence of any signs and symptoms was seen. Our present data suggest that re-treatments will be necessary for this therapy to become clinically valuable in the long-term management of *Irq-un-Nasa*. *Fasd*, as applied in this study, was safe and well-tolerated by the patients.

6. CONCLUSION

To conclude, *Fasd* has been used as a widespread therapeutic practice throughout the ages for a wide range of diseases. It is a relatively simple and inexpensive treatment modality when it comes to many acute and chronic diseases. Based on the results of the present cases, it appears that such cases of *Irq-un-Nasa* can be managed with *Fasd* (Venesection) and can improve the quality of life with a relative long-term clinical efficacy in such patients without any side effects, but the investment is urgently needed for advanced research of this therapy. The use of this therapy on a scientific basis is the need of the hour. Therefore, robust clinical trials using appropriate endpoints need to be conducted. *Fasd* will result in speedy and effective management in *Irq-un-Nasa*. In addition, further advanced capillary hemodynamic studies are required to have more in-depth and firm insight into its exact mechanism of action.

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CONFLICT OF INTEREST

The authors have no conflicting financial interests.

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AUTHOR'S CONTRIBUTION

FK- Conceptualization, Literature survey, Manuscript writing, and Manuscript drafting
MN-Supervision, and Editing.
ANA- Supervision, and Editing.

INFORMED CONSENT

An informed written consent was obtained from the patients for reporting this case.

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