



**ORIGINAL RESEARCH PAPER**

**Medical Science**

**EVALUATION OF THERAPEUTIC EFFICACY OF RAUGHAN-E- AAQAR QARHA ALONG WITH DALK (MASSAGE) IN THE MANAGEMENT OF IRQUNNASA (SCIATICA)**

**KEY WORDS:** Irqunnasa, Roghan-e- Aaqar qarha, Tanqiya wa Tadeel, Unani

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**ABSTRACT**

Irqunnasa is one of the commonest neuralgic pain emanating from the lower back and felt along the distribution of the sciatic nerve in the lower extremity. Irqunnasa, inflicted with Sue Mizaje Maddi, is treated on the principles of Tanqiya wa Tadeel. Various Unani regimens i.e Dalk, Hijamat Bish Shurt and Bila Shurt, Fasd, Takmeed, Taleeq, Zimaad, Tila, Nutool are known to be effective in the treatment of Irqunnasa. The most commonly recommended compound drugs used in sciatica are Roghan-e- Aaqar qarha, Roghan-e-Tambakoo, Roghan-e-Seer, Roghan-e-Kuchla etc. which are massaged on the affected parts. However, their efficacy has not been validated scientifically. Roghan-e- Aaqar qarha is widely used in general practice and also mentioned in classical Unani literature for treatment of Irqunnasa. **Methods:** Fourty diagnosed cases of Irqunnasa, aged between 20 to 60 years, of either gender, fulfilling the inclusion criteria were selected for the study after obtaining voluntary informed consent. Dalk was started from the 1st day with 20 ml of Roghan-e- Aaqar qarha on lower back and painful limb, once a day for 15 minutes daily for a period of 45 days. Objective parameters (VAS, ODI & SLRT) were assessed before and after the treatment using Paired student's t- test. **Results:** The mean differences of pre and post treatment values in all the parameters were found statistically significant (p<0.001).

**Introduction:**

Irqunnasa is a kind of Wajaul Mafasil (1,2) and the word is derived from Arabic comprising of two words "Irq" and "Nasa". "Irq" stands for vessel and "Nasa" for the name of a rag (vein), which traverses the lateral aspect of thigh up to ankle joint (3,4). The term Sciatica is derived from the Greek word ischios that means hip. Sciatica is a pain that originates deep in the buttock and radiates towards the posterolateral which; may continue to the calf, medial malleolus (L4), lateral malleolus (L5) or heel (S1) (5). Buqrat (Hippocrates) was the first physician, who used the term 'sciatica'. Most of the Unani physicians consider that patient experiences pain due to presence of morbid Khilt (pathological substance) in this vein; However, Ibn Sina mentioned that Madda (morbid khilt) originates from the Azlat (muscles) and is drawn to the Asabe areeza (sciatic nerve). The annual prevalence of disc related sciatica in the general population is estimated at 2.2% and incidence of sciatica associated low back pain is 5% to 10%. 2% to 40% of people have sciatica at some point of time in their life.(6,7) It is most common during peoples' 40s and 50s and men are more frequently affected than women (17). In reference to sciatica treatment; medical sciences have only symptomatic management and surgical procedures with interest of adverse reaction. Pharmacological therapy carries oral or parenteral administration of NSAIDs, epidural injections of anaesthetics and corticosteroids, whereas, surgery involves anaesthesia, hemilaminectomy, microdiscectomy as a diverse mode of treatment.(7,8) The consequences of conventional therapy in terms of cost, quality of available treatment and its associated adverse effects constantly propel to look out for a benign remedial approach. Unani scholars successfully treated sciatic pain through different approaches of treatment. As per the tenets of Unani treatment, the altered temperament is brought back to normal by drugs and/or employing various Tadabeer (regimens) such as Dalk, Takmeed, Nutool, Hijamat Bish Shurt, Hijamat Bila Shurt, Mahjama Nariya Irsale Alaq, Fasd, Amale Kai etc. It is usually treated as per the line of treatment of Amraze Mafasil. (1) In view of the above facts, an open, single arm clinical trial was carried out to evaluate the efficacy of Dalk with Raughan-e-Aaqar qarha in management of Irqunnasa on 40 patients.

**Methodology:** The present study was conducted at Jamia Tibbiya Deoband Hospital. A total of 40 eligible subjects fulfilling the inclusion criteria were selected from OPD/ IPD. During the selection procedure, complete history including general physical and systemic examination was carried out and recorded on a prescribed proforma, designed according to the objectives of the study. Three reliable and valid parameters: Straight leg raising test, VAS index (10 points Likert's Scale), ODI (Oswestry Disability Index) were used in the study and their scores were recorded on 0, 15th, 30th and 45th day. Written informed consent was sought from all subjects before inclusion in the study.

**Inclusion criteria:**

1. Clinically diagnosed cases of Irqunnasa
2. Both genders
3. Patients between 20 to 60 years of age

**Exclusion criteria:**

1. Pregnancy, Lactation, children
2. Systemic illness e.g. cancer, liver, kidney, cardiac and pulmonary diseases
3. Spinal injury or deformity (Congenital / Acquired)

**Allocation of patients:**

A total number of 50 patients were screened, out of which 45 cases fulfilled the inclusion criteria. Five patients had Systemic illness e.g. cancer, liver, kidney, cardiac and pulmonary diseases and therefore excluded. Finally, 45 cases were enrolled. However, a total of 40 cases completed the study as 5 cases lost to follow up Method of preparation, storage and mode of administration of test drug:

The ingredients of Raughan-e- Aaqar qarha were provided by pharmacy of Jamia Remedies. Proper identification of these drugs was done by chief pharmacist, Jamia Tibbia Deoband to ensure their originality and authenticity. The drugs were cleaned by weeding out unwanted material and impurities. Aaqar qarha was boiled in the morning. When the volume of the water reduced to fifth time, decoction was sieved. The olive europea oil (roghan-e- zaitoon) was heated separately and then the sieved decoction was added to it gradually. On further heating of this amalgamation, the remaining water

evaporated away leaving behind the oil only. On cooling, the oily mixture was decanted and kept in bottles. All the above procedures were carried out under the guidance of the chief pharmacist. From the 1st day, Dalk (massage) was started with 20 ml. of Raughan Aaqar-qarha on lower back and painful limb, once a day for 15 minutes daily for a period of 40 days i.e. up to 45th day of trial treatment.

**Objective parameters**

1. VAS index (10 points Likert's scale)

2. ODI (Oswestry Disability Index)

3. Straight leg raising test

Follow up: 0 day, 15th, 30th and 45th day

**Results:**

Visual analogue scale	Min-Max	Mean ± SD	Mean difference	t value	p value
0 Day	6.00-9.00	7.55±0.782	-	-	-
15 <sup>th</sup> Day	5.00-8.00	6.475±0.816	-1.075	6.012	p<0.001
30 <sup>th</sup> Day	4.00-7.00	5.35±0.802	-2.200	12.413	p<0.001
45 <sup>th</sup> Day	3.00-6.00	4.35±0.802	-3.200	18.056	p<0.001

Oswestry disability index	Min-Max	Mean ± SD	Mean difference	t value	p value
0 Day	50.00-78.00	66.5±7.52	-	-	-
15 <sup>th</sup> Day	35.00-75.00	54.05±9.87	-12.450	6.342	p<0.0001
30 <sup>th</sup> Day	20.00-62.00	44.35±10.647	-22.150	10.743	p<0.0001
45 <sup>th</sup> Day	15.00-56.00	36.85±10.207	-29.650	14.786	p<0.0001

SLRT	Min-Max	Mean ± SD	Mean difference	t value	p value
0 Day	20.00-50.00	36.5±10.23	-	-	-
15 <sup>th</sup> Day	30.00-60.00	45.6±9.53	-9.100	4.122	p<0.001
30 <sup>th</sup> Day	40.00-70.00	55.25±9.05	-18.750	8.693	p<0.001
45 <sup>th</sup> Day	50.00-75.00	64.25±8.36	-27.750	13.304	p<0.001

**Discussion:**

The present is an open single arm pre and post without control clinical study, which was carried out at Jamia Tibbiya Deoband Hospital, over a period of 18 months, from April, 2017 to September, 2018. The primary pathology behind the pain in Irqunnasa is Imtila (congestion) of Ghair Tabai Madda (morbid humour) in the lower back and affected limb. Ibn sina suggested that any sudden change in the temperament affects the physical condition of an organ, thereby, leading to pain. Since, Irqunnasa is caused due to Ghair Tabai Akhlat, (usually Balgham kham) and, at times, by other Morbid Akhlat also; hence, it produces Sue Mizaj Maddi in the body. These Akhlat need to be eliminated by Munzij- Mushil therapy followed by employment of various regimens such as Dalk, Hamman, Riyazat, Irsale Alaq, Nutool and Zimadat etc. to restore the Mizaj and normal function of the organs. The line of treatment in Irqunnasa is Tanqiya wa Tadeel, which conforms to the basic tenet of treatment-Ilaj-Bil Zid (heterotherapy). In this clinical study, the goal of Tanqia wa Tadeel was achieved by Dalk with Raughan-e- Aaqar-qarha to restore and potentiate the functions of the involved organs. (2,9,10) Action

of Dalk is based on two fundamental concepts i.e. Tanqiyae Mawad (evacuation of humour) and Imalae Mawad (diversion of humour). Tanqiyae Mawad means the resolution and excretion of morbid humours and excess fluid from the body, thereby, maintaining the homeostasis in the quantity and quality of four body humors, which is responsible for the maintenance of health.(11,12) Imalae Mawad refers to the diversion of the morbid fluid from the site of affected organ to the healthy site from where it is easily expelled out from the body. It also induces analgesia and increases blood circulation. From modern perspective the therapeutic massage is used for the relief of pain, swelling, muscular sprain, restricted movement, tension and anxiety.

**Conclusion:**

It may be concluded that the test formulation Raughan-e-Aaqar-qarha along with Dalk (massage) is effective in reducing the symptoms and signs of Irqunnasa such as pain, disability, and restriction of leg movements. The study effects on objective parameters like VAS, ODI and SLRT was found highly significant with p<0.001. The test drug may be used for the short-term control of pain. The limitations of the study were smaller sample size and short duration of therapy. However, long term studies on larger sample size and follow up without continuation of the drug are required for further exploration and sustained effects of the efficacy. In future, this study should be conducted as randomized controlled trial to obviate any confounding factors creating bias in the study.

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