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# Effect of *Dalk Motadil Kaseer* (Moderate Massage) with *Roughn Biskhapra* (Horse Purslane oil) in *Waja uz zahr* (low back pain)

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## Abstract

*Low back pain (Waja uz Zahr) is an affliction that affects a substantial proportion of people. No one is resistant to this condition or its potential incapability, which does not discriminate by gender, age, race or culture. The main aim of the study was to assess the effect of Dalk Moatadil Kaseer with Roughn Biskhapra in low back pain. The present study was an before and after without control study carried out at the department of Moalajat in National Institute of Unani Medicine (NIUM) Bangaluru. A total of 30 patients of both sex, above the 20 years and below 69 years of age, giving the history of low back pain were selected for the trial. A total of 8 sittings of local massage with Roughn Biskhapra were scheduled over 21 days. In this trial, Dalk Moatadil Kaseer with Roughn Biskhapra was found effective statistically in relieving symptoms of Waja uz zahar. So the study provides good evidence in support of the efficacy of Dalk Moatadil Kaseer with Roughn Biskhapra in low back pain.*

**Keywords:** Dalk Moatadil Kaseer, Moderate Massage, Waja uz zahr, Low back pain, Roughan Biskhapra, Unani medicine.

## Introduction

Low back pain (LBP) is described as a disease in which pain remains stationary in the lumbar and lumbosacral region and does not radiate downwards. The pain arises from internal and external muscles; ligaments surrounding the lumbar and lumbosacral region due to *fasaad* in *mizaj* (ill temperament). This *fasaad* in *mizaj* is due to surplus *buroodat* (excessive cold) and accumulation of *kham balgham* (raw phlegm). Pain may also arise due to accumulation of *ghaleez riyah* (viscid gas) in the lumbar and lumbosacral region[1]. LBP manifests as most expensive disease in the productive years. Any part of the back may ache; but the commonest site is the lower back that is, lumbar and lumbosacral region. It is the main source of action constraint and work nonattendance all through a great part of the world and it causes a gigantic monetary weight on people, families, groups, industry and governments. It is seen most frequently in patients between the ages of 20 and 40 years, but it is more severe when it occurs in older patients. Lifetime prevalence of LBP in developed countries is up to 85%, which makes this complaint second only to the common cold[2,3]. Unani medicine have a wide variety of treatment modes, which, if used carefully as per their principles and guidelines, will yield positive results in by far most of patients, not just as far as alleviating agony and enduring, additionally in safeguarding long haul articular structure and work. The approach towards musculoskeletal disorders in Unani medicine has not regarded pharmacotherapy and diet therapy as the only reliable answer for relief. However there are many other methods that belong mainly, although not exclusively, to the realm of regimenal therapy, and these all have their eager proponents. These include massage (*Dalk*), therapeutic exercise (*Riyazat*), therapeutic bath (*Hamam*), cupping (*Hijamah*), venesection (*Fasad*), and hot fomentation (*takmeed*), irrigation therapy (natool). The common feature of all these methods is their diversion effect **(***Imalah Mawad***)**. Among these, *Dalk Moatadil Kaseer* (a special type of message done for longer duration and with moderate pressure) was selected due to the reason that *dalk* has a unique property to expel highly viscid and sticky matter (*ghaleez aur lasdar madah*), remove excessive *buroodat* (*buroodat munjamidah*) and *riyah* from a particular organ and can be specially utilized to displace morbid matter (*imalah mawad)* from one organ to another, if done particularly with (*Har mizaji*) hot temperamental medicinal oils. It is high time that safety and efficacy of these regimes and drugs should be validated scientifically on modern parameters. Hence, a clinical trial was contemplated with the objective of providing safe, effective and economical therapy in patients of low back pain[4-6].

## Materials and Methods

The present study was a before and after without control study, conducted on 30 patients LBP selected from National Institute of Unani Medicine (NIUM) Hospital, Bangaluru, after obtaining ethical clearance from Institutional ethical committee (IEC) for biomedical research over a period of 07 months from April 2012 to October 2012. Patients were selected on the basis of clinical diagnosis. A total of 30 patients of either sex, above

the 20 years and below 69 years of age, giving the history of low back pain were selected from OPD/IPD and evaluated for the consideration as a research subjects. Every subject was completely informed of the experimental procedures and had signed an informed consent statement before joining in the trial. Certain investigations were carried out with an aim to exclude the patients with pathological conditions mentioned under exclusion criteria like: Patients with gout and RA, Patients having malignancy, local wounds or severe skin infection, Traumatic (fracture or severe dislocation at lumbar region) patients or patients with severe systemic illness. Massage sittings were kept on alternate days in first week and twice a week in rest of the 2 weeks. Massage was done on lower back for 15- 20 minutes on alternate day in first week and twice a week there after for another 2 weeks, performed with the fingers and palms of both hands. Approximately 20 ml of oil was used in every sitting. Patients were made to lie in prone position on the massage table, with the area to be massaged was exposed properly. The treatment period was scheduled as 3 weeks (8 sittings). The assessment of efficacy of treatment in relieving low back pain, relief in tenderness and difficulty in walking were carried out on basis of a reliable and valid scale i.e. VAS, and arbitrary scale for tenderness and difficulty in walking (both graded from 0-3) respectively. The assessment of parameters was done before starting the treatment and on 21$^{th}$ day. Once the patients eased of the pain totally; they were asked for follow up fortnightly for 1 month. Same pain assessment technique i.e. VAS was used to assess the pain. Statistical analysis was restricted to those patients who completed the full duration of protocol of the study. Wilcoxon signed rank test was used to analyze the efficacy of the procedure. The confidence level was set to be at $p<0.05$ for significant results of treatment.

## Results and Discussion

Among the 30 subjects studied, males outnumbered the females (86.7%). There mean age was 32.2 (SD± 42). Cumulatively majority of them were found in the age group of 20-35 years (70%). Out of 30 subjects 66.7% were married. Majority of patients (53.3%) belongs to such occupation in which lower back is under continuous strain. e.g., driver, mechanic, carpenter, field worker etc. Out of total patients, 17 (56.7%) patients were of normal weight with BMI <25, followed by 11(36.7%) patients with BMI in the range of 25-30. The Mean ± SD score of pain, tenderness and difficulty in walking before starting the treatment, at 7$^{th}$ day, 14$^{th}$ day and at the end of treatment are summarized in Table-2. When the mean ± SD scores of Low back pain, Tenderness and Difficulty in Walking were compared from baseline statistically using wilcoxon signed rank test for intragroup comparison. It was found that the difference between the mean scores at 7$^{th}$, 14$^{th}$ and 21$^{st}$ day with respect to baseline were highly significant ($p<0.0001$).

**Table-1**
**Base line demographic profile of subjects**

| **Age in years** | **Number of patients** | % |
|---|---|---|
| 20-25 | 11 | 36.7 |
| 26-35 | 10 | 33.3 |
| 36-45 | 5 | 16.7 |
| 46-55 | 4 | 13.3 |
| Total | 30 | 100.0 |
| Mean ± SD: 32.20±10.42 | | |
| **Gender** | **Number of patients** | % |
| Male | 26 | 86.7 |
| Female | 4 | 13,3 |
| Total | 30 | 100.0 |
| **Marital status** | **Number of patients** | % |
| Married | 20 | 66.7 |
| Unmarried | 10 | 33.3 |
| Total | 30 | 100.0 |
| **Occupation** | **Number of patients** | % |
| Skilled | 13 | 43.3 |
| Unskilled | 9 | 30.0 |
| Business | 3 | 10.0 |
| House wife | 4 | 13.3 |
| Student | 1 | 3.4 |
| Total | 30 | 100.0 |
| **BMI(kg/m$^2$)** | **Number of patients** | % |
| <25 | 17 | 56.7 |
| 25-30 | 11 | 36.7 |
| >30 | 2 | 6.6 |
| Total | 30 | 100.0 |

**Table-2**
**Evaluation of Subjective and objective parameters in patients studied**

| Variables | | BT | 7th day | 14th day | 21st day |
|---|---|---|---|---|---|
| TENDERNESS | Mean ±SD | 1.8±0.76 | 1.5±0.86 | 0.63±0.72 | 0.27±0.52 |
| | Difference from BT | - | 0.30 | 1.17 | 1.53 |
| | P value from BT | - | 0.026* | <0.001** | <0.001** |
| DIFFICULTY IN WALKING | Mean ±SD | 1.67±0.71 | 1.27±0.74 | 0.5±0.63 | 0.1±0.31 |
| | Difference from BT | - | 0.400 | 1.167 | 1.567 |
| | P value from BT | - | 0.001** | <0.001** | <0.001** |
| LOW BACK PAIN | Mean ±SD | 6.93±1.62 | 5.4±1.61 | 3.57±1.65 | 1.47±1.91 |
| | Difference from BT | - | 1.53 | 3.37 | 5.47 |
| | P value from BT | - | <0.001** | <0.001** | <0.001** |

*Moderately significant (P value: 0.01<P ≤ 0.05), **Strongly significant (P value: P≤0.001)

Pain and tenderness in *waja uz zahr* originates due to the accumulation of *akhlat -e -fasida* (morbid humors*)* in the joint structures of lumbosacral region that leads to *sue mizaj barid* (cold ill temperament)[1]. As the pain fibers are present in the structures of the lumbosacral joints like capsules, tendons, ligaments, blood vessels etc.[7] Thus the pressure exerted on these structurs due to accumulated *fasid madda*, *riyah*, disc protrusions, osteophytes, trauma or by simple *sue mizaj mukhtalif,* gives rise to pressure symptoms i.e. low back pain and tendernes. Difficulty in movement (walking) may be directly related to pain and stiffness in the lower back. Stiffness may be due to spasm in the joint structurs like tendons, capsules etc. due to *baroodat* (excessive cold). The overall effect of test procedure (*Dalk*) along with test drug (*Raughan Biskhapra*) may be due to the *istifragh* (evacuation) and *imala mawad* (diversion) of vicid and sticky matter, removal of excessive *buroodat* and *riya*h from the joint structures of lumbosacral region and also attributed to the *musakkin auja* (analgesic), *muhallil auram* (resolvent), *moaddil-e-balgham*, *kasrih riyah*, properties of *Raughan Biskhapra.* These findings are in conformity with the findings of Ibn Rushd, Alama Nafees, Ibn Sina, Akbar Arzani, Zakaria Razi, Najmul Ghani etc.[1,4-6,8].

The significant results of the present study strongly coincides with the studies conducted by Cherkin DC *et al*., in which massage therapy was found superior to the other treatment modalities like Self Care, Reflexo therapy, Traditional Chinese medical Acupuncture in relieving back pain. Hernandez-Reif *et al*., Prayde M, and Tim Hideaki Tanaka *et al.*(2006), have conducted similar studies, in which conclusive benefits of massage therapy in reliveing back pain was mentioned[9-14].

## Conclusion

In conclusion our findings suggest that *Dalk Moatadil Kaseer* with *Roughn Biskhapra* is a reasonable treatment option for persons with low back pain. However, larger and controlled studies are required to reach at final conclusion.

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