Title of the Study: Evaluation of *Hijamah* (cupping) therapy in *Irqunisa* (Sciatica) Patients

Methodology: The present study was conducted in *Irqunisa* (Sciatica) patients with a view to develop Standard Operating Procedures (SOPs) for the *Hijamah* (Cupping) therapy in patients of *Irqunisa* (Sciatica). Ten patients fulfilling the Selection criteria were enrolled in the study. These patients were evaluated after 15 days of treatment.

Patients clinically diagnosed with *Irqunisa* (Sciatica) were treated with *Hijamah* (cupping) therapy as well as Standard Unani formulations selected for the study. The cupping was done along the course of the sciatic nerve i.e. from low back (lateral side) to the ankle posteriorly as per protocol. There was only one patient with history of CRP and no patient was positive for RA factor. The assessment was done on VAS scale.

Results and Discussion

The results of the study are as follows:-

Improvement in Pain:

The chief compliant of the patients was pain in the low back which was radiating up to ankle joint. After the treatment, the t-value was 8.4911 and the p- value corresponding to the t-value was <.0001 which is highly significant at p < .05

Improvement in Tenderness:

All patients were having the complaints of tenderness which was evaluated after the treatment. It was observed that the t-value was 3.03046 and the p- value corresponding to the t-value was 003596. < .0001 which is highly significant at p < .05

Improvement in Joint Movement (ROM):

Improvement was observed in the Joint Movement after the treatment. It was observed that the t-value was 3.63803 and the p- value corresponding to the t-value was 0009416. < .0001 which is highly significant at p < .05

It was also observed that no untoward effects was observed or reported by the patients treated with the *Hijamah* (cupping) therapy as well as Standard Unani formulations.

Hence, it may be concluded that the *Hijamah* (cupping) therapy is effective in the management of *Sciatica* on applying 4-5 cups daily for average time of 10 minutes. It may be because the Cupping therapy increases blood flow at the site of the cupping, stimulates blood circulation to increase metabolism and speed up the removal of waste and toxic material from the body.

It stretches muscles and connective tissue and thereby decreasing TGF-b1 and collagen synthesis which are known to generate fibrosis and connective tissue stiffness that may further enhance

microcirculation, cellular metabolism and regeneration and thus decreasing the tenderness as well as pain.

It is also found that cupping is able to increase the lactate / pyruvate ratio after 160 minutes, indicating an anaerobic metabolism in the surrounding tissue with increased pressure pain thresholds in some areas. It also increases vasodilatation and decreases congestion. It is also helpful in strengthening body resistance, ejecting pathogenic factors and promoting blood circulation to alleviate pain

Title of the Study: Evaluation of Fasd (venesection) therapy in Waja-ul- Unuq Patients

Methodology: The present study was conducted in *Waja-ul- Unuq* (Cervical Spondylosis) patients with a view to develop Standard Operating Procedures (SOPs) for the *Fasd* (venesection) therapy in patients of *Waja-ul- Unuq* (Cervical Spondylosis). Ten patients fulfilling the Selection criteria were enrolled in the study. These patients were evaluated after 15 days of treatment.

Patients clinically diagnosed with *Waja-ul- Unuq* (Cervical Spondylosis) were treated with *Fasd* (venesection) therapy as well as Standard Unani formulations selected for the study. The *Fasd* was done Basilic vein (medial side of cubital fossa) as per protocol. There was only one patient with history of CRP and no patient was positive for RA factor. The assessment was done on VAS scale.

Results and Discussion

The results of the study are as follows:-

Improvement in Pain:

• The chief compliant of the patients was pain in neck which was radiating up to arm. After the treatment, the t-value was 6.78121 and the p- value corresponding to the t-value was <.0001 which is highly significant at p < .05

Improvement in tenderness:

• All patients were having the complaints of tenderness which was evaluated after the treatment. It was observed that the t-value was 3.84461 and the p- value corresponding to the t-value was 000594 which is highly significant at p < .05

Improvement in Joint Movement (ROM):

• Improvement was observed in the Joint Movement after the treatment. It was observed that the t-value was 4.66628 and the p- value corresponding to the t-value was 000096. < .0001 which is highly significant at p < .05

Neck Pain Questionnaire (NPQ):

• There was good decrease in NPQ score, the t-value was 7.28267 and the p- value corresponding to the t-value was <.0001 which is highly significant at p <.05

It was also observed that no untoward effects was observed or reported by the patients treated with the *Fasd* (venesection) therapy as well as Standard Unani formulations.

Hence it can be concluded that the *Fasd* is effective in the management of *Waja-ul- Unuq* as per protocol. It may be because it helps in better blood flow and helps in increasing the range of motion.

To reduces the extra volume of blood and thus helps in removing the congestion whic alleivates the pain also increases the ROM.

It also prevent further accumulation of toxic and morbid matter and thus help in removing tenderness and inflammation

It diverts the blood to the opposite side, this is often quite useful and effective and releving pain and tenderness

Title of the Study: Evaluation of Takmeed therapy in Waja-ul- Warik Patients

Methodology: The present study was conducted in *Waja-ul- Warik* (Hip joint pain) patients with a view to develop Standard Operating Procedures (SOPs) for the *Takmeed* therapy in patients of *Waja-ul- Warik* (Hip joint pain). Ten patients fulfilling the Selection criteria were enrolled in the study. These patients were evaluated after 15 days of treatment.

Patients clinically diagnosed with *Waja-ul- Warik* (**Hip joint pain**) were treated with *Takmeed* therapy as well as Standard Unani formulations selected for the study. The *Takmeed* was done was as per protocol. There was 2 patients with history of CRP and no patient was positive for RA factor. The assessment was done on VAS scale and ODI.

Results and Discussion

The results of the study are as follows:-

Improvement in Pain:

• The chief compliant of the patients was pain in hip joint which was radiating up to knee. After the treatment, the t-value was 10.26693 and the p- value corresponding to the t-value was <.0001 which is highly significant at p < .05

Improvement in tenderness:

• All patients were having the complaints of tenderness which was evaluated after the treatment. It was observed that the t-value was 5.45961 and the p- value corresponding to the t-value was .000017 which is highly significant at p < .05

Improvement in ODI score:

• Improvement was observed in the ODI score after the treatment. It was observed the t-value was 5.49181 and the p- value corresponding to the t-value was .000016 which is highly significant at p < .05

Improvement in Joint Movement (ROM):

• Improvement was observed in the Joint Movement after the treatment. It was observed that the t-value was 5.9691 and the p- value corresponding to the t-value was <.0001 which is highly significant at p < .05

It was also observed that no untoward effects was observed or reported by the patients treated with the *Takmeed* therapy as well as Standard Unani formulations.

Hence it can be concluded that the *Takmeed* is effective in the management of *Waja-ul-Warik* on applying *Takmeed* daily twice for average time of 10 minutes and it is because it alleviate or

removes the excess coldness from the body as well as from the site of lesion and will produce warmth over the affected area.

It increases the blood circulation which boosts in healing process.

It looses tense and sore areas which acts as analgesic and helps in alleviating the pain.

It also helps in dispersing flatus and thus removes tenderness due to congestion

Title of the Study: Evaluation of *Irsal-e- Alaq* (Leeching) in *Waja-ul- Raqba* (O.A. Knee) Patients

Methodology: The present study was conducted in *Waja-ul- Raqba* (O.A. Knee) patients with a view to develop Standard Operating Procedures (SOPs) for the *Irsal-e-Alaq* therapy in patients of *Waja-ul- Raqba* (O.A. Knee). Ten patients fulfilling the Selection criteria were enrolled in the study. These patients were evaluated after 15 days of treatment.

Patients clinically diagnosed with *Waja-ul- Raqba* (O.A. Knee) were treated with *Irsal-e-Alaq* (Leeching) therapy as well as Standard Unani formulations selected for the study. The *Irsal-e-Alaq* was done was as per protocol. There was no history of CRP and no patient was positive for RA factor. The assessment was done on VAS and WOMAC scale

Improvement in Pain:

• The chief compliant of the patients was pain in neck which was radiating up to arm. After the treatment, the t-value was 12.1034 and the p- value corresponding to the t-value was <.0001 which is highly significant at p <.05

Improvement in WOMAC score

• The chief compliant of the patients was pain in knee joint which. After the treatment t-value was 9.29028 and the p- value corresponding to the t-value was <.00001 which is highly significant at p < .05 < .05

Improvement in tenderness:

• All patients were having the complaints of tenderness which was evaluated after the treatment. It was observed that the t-value was 5.45961 and the p- value corresponding to the t-value was .00042 which is highly significant at p < .05 at p < .05

Improvement in Joint Movement (ROM):

• Improvement was observed in the Joint Movement after the treatment. It was observed that the t-value was .000522 and the p- value corresponding to the t-value was <.0001 which is highly significant at p <.05

It was also observed that no untoward effects was observed or reported by the patients treated with the *Irsal-e-Alaq* therapy as well as Standard Unani formulations

Hence it can be concluded that the *Irsal-e- Alaq* is effective in the management of *Waja-ul-Raqba* as per protocol. It may be because leeches are armed with a range of pharmacologically

active ingredients: a local anesthetic substance, a vasodilator, and the hirudin, which is a long-acting anticoagulant. So the analgesic effect of leeches in osteoarthritic pain may be due to salivary secretion of analgesic agents, such as inhibitors of kallikrein and anti-inflammatory agents, including protease inhibitors Met-enkephalin and Leu-enkephalin are small endogenous peptides and bind to the same specific receptors as opiate analgesics.

It also have actions such as bacteriostatic, analgesic, resolving actions, has anti-oedematous, improves immune system activity, eliminates microcirculation disorders, restores permeability of tissues and organs, eliminates hypoxia, detoxifies the organis so it also decreases the inflammation and increses ROM.

Hyaluronidase (spreading factor) helps in penetration and diffusion of pharmacologically active substances into the tissues, especially in joint pain and has antibiotic properties

Title of the Study: Evaluation of Dalk (Massage) in Waja-us- Zuhr (Lumbago) Patients

Methodology: The present study was conducted in *Waja-us- Zuhr* (Lumbago) patients with a view to develop Standard Operating Procedures (SOPs) for the *Dalk* therapy in patients of *Waja-us- Zuhr* (Lumbago). Ten patients fulfilling the Selection criteria were enrolled in the study. These patients were evaluated after 15 days of treatment.

Patients clinically diagnosed with *Waja-us-Zuhr* (Lumbago) were treated with *Dalk* (Massage) therapy as well as Standard Unani formulations selected for the study. The *Dalk* was done was as per protocol. There were 2 patients with history of CRP and no patient was positive for RA factor. The assessment was done on VAS

Improvement in Pain:

• The chief compliant of the patients was pain in lowback area. After the treatment, the value was 8.66156 and the p- value corresponding to the t-value was <.0001 which is highly significant at p < .05

Improvement in tenderness:

• All patients were having the complaints of tenderness which was evaluated after the treatment. It was observed that the t-value was 4.23324 and the p- value corresponding to the t-value was .00025 which is highly significant at p < .05

Improvement in Swelling

• Patients were having the complaints of swelling which was evaluated after the treatment. It was observed that the t-value was 2.41495 and the p- value corresponding to the t-value was .013299 which is highly significant at p < .05

Improvement in Joint Movement (ROM):

• Improvement was observed in the Joint Movement after the treatment. It was observed that the t-value was 7.37902 and the p- value corresponding to the t-value was <.0001 which is highly significant at p < .05

It was also observed that no untoward effects was observed or reported by the patients treated with the *Dalk* therapy as well as Standard Unani formulations.

Hence it can be concluded that the *Dalk* is effective in the management of *Waja-us-Zuhr* on applying *Dalk* daily twice for average time of 15 minutes Hence it can be concluded that the

Dalk is effective in the management and it may because it facilitates the forward movements of the venous blood and lymph and thereby reduces the chances of stagnation of the blood and the lymph in the tissue space. Decrease of venous congestion by promoting the forward movement of lymph and blood and indirectly helping in resting the arterial flow.

A definite vasodilatation along with an increase in the peripheral blood flow as usually observed after massage helps in 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.

Increases excitability of alpha motor neuron which further helps in increasing the ROM.

Increases Mobility in soft tissue, breaks the soft tissue adhesion so there is relief of pain, swelling, muscular sprain, restricted movement, tension and anxiety.