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## Analgesic, Anti-Inflammatory and Anti-Microbial Activities of *Irsa (Iris ensata)*: A Clinical Study on the Patients of *Iltehabe Unqur-Rehm (Cervicitis)*



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### ABSTRACT

**Background and Objectives:** Iltehabe Unqur Rehm (cervicitis) refers to the inflammation of the cervix which may be acute or chronic causing various complications. Hence it has been decided to conduct a clinical trial for its management with Irsa. **Method:** Irsa was given in the form of majoon, 10 gm in two divided doses after menses for 15 days for three cycles. Extract of Irsa (10ml) was prepared and used locally in the form of humool (pessary) OD after menses for 15 days for three cycles. All the patients were assessed by subjective parameters and per speculum examination once in fifteen days for three cycles. **Results:** Low backache was relieved in 16 (53.3%) patients, lower abdominal pain was relieved in 21 (72.4%) patients and dyspareunia was relieved in 12 (85.7%). After the completion of the treatment 9 (100%) patients had shown improvement in abnormal vaginal odour. Relief in pruritis vulvae was observed in 20 (80%) patients. Dysuria was relieved in 19 (86.4%) patients. All the patients i.e. 30 (100%) complained of vaginal discharges. After the completion of treatment 13 (43.3%) recovered completely and on per speculum examination 30 (100%) patients had cervical discharge at the beginning of trial. After the completion of treatment 15 (50%) had shown improvement. Cervical swab culture was positive in 5 (16.7%) patients at the beginning of trial. After the completion of treatment 4 (80%) patients had shown improvement. **Interpretation and Conclusion:** The study revealed that the test drug is effective. So, the trial drug can be recommended to manage it.



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## INTRODUCTION

In Greek Iris has two meanings “*the goddess Iris*” and “*the Rainbow*” [1]. The flowers of *Irsa* are yellow, dark yellow, white or sky blue in colour and due to these colour variations the drug was given the name of *Irsa* which means rainbow [2,3,4].

Commonly known as *Sosan* few says it is “*Jungli sosan asmani*” and few ‘*Pahadi sosan asmani*”<sup>3</sup>. The pulp of the root is yellowish red or white. It smells like *banafsha* hence named *bekh-e-banafsha*. **Dioscoridos** and **Saad firastus** have described about the drug. The best quality is small broad and thick which is difficult to break. The root is hard and fibrous. The odour is pungent and the taste is slightly bitter and aromatic [3,4,5].

### Mizaj

- Hot and Dry ( second degree) [2]
- Hot ( third degree) and Dry ( second degree) [6]

*Iltehab* *Unqur Rehm* (cervicitis) is very common affecting more than half of all women at some points during their adult lives. Intercourse at an early age, high risk sexual behavior, multiple sexual partners, and a history of sexually transmitted diseases increases the risk of cervicitis in women. Cervicitis may be acute or chronic and each of this acute and chronic cervicitis may be from non infective and infective causes respectively [7, 8, 9].

According to unani system of medicine *Iltehab unqur rehm* may be *Iltehab har* or *Iltehab barid*. *Iltehab har* is due to the domination of hot humours mainly *safra* and *dam* and *Iltehab barid* is due to the domination of *balgham*. *Iltehab unqur rehm* can be caused by “*sue mizaj*”. When *sue mizaj* inflicts any organ, it results in certain changes in the functions of that organ and these aberrant changes leads to derangement in the normal functioning of intrinsic faculties which manifests in the emergence of diseases [10,11,12,13].

In *Iltehab unqur rehm* the usual manifestations which occur singly or in combination are vaginal discharge, backache, lower abdominal pain, dysuria, dyspareunia etc. On examination, cervix is congested, hypertrophied with velvety appearance. Ectropions are present which may be inflamed and bleeds on touch, nabothian follicles are present on the cervix, and tender to touch with exudation of mucopurulent, opaque or clear discharges from the cervical os.

Prevalence rate is 10 to 40%. Initial infection of PID begins with cervicitis predominantly between the ages of 15 and 44 years. Gonococcal infection remains a major health problem, as more than sixty million cases are reported annually worldwide. Genital infection due to *Chlamydia trachomatis* is one of the most prevalent STD worldwide [9,14,15].

In unani system of medicine, many drugs are ascribed which are *mohallil* (anti inflammatory), *musakkin* (analgesic), *mufatteh* (deobstruent), *mulattif* (demulcent), *musaffi* (blood purifier) *munaqqi* (expectorant). By Careful forage into unani literature, *Irsa* was selected for the trial. *Irsa* is one such drug which has been extensively described in unani literature to possess *mohallil* *warm* (anti-inflammatory), *mulattif* (demulcent), *mufatteh* (deobstruent), *munzij* (concoctive), *musaffi* (purifying), *jali* (detergent) and *mushil safra wa balgham* properties [3,5,16]. So it has been decided to conduct a clinical trial for management of *Iltehabe Unqur Rehm* with *Irsa* which is safe, effective and easily available.

## MATERIALS AND METHODS

The study was carried out during 2009-2010 in outpatient and inpatient department of *Ilmul Qabalat wa Amraze Niswan* of National Institute of Unani Medicine, Hospital.

### Clinical diagnosis

Diagnosis of cervicitis is based on the following criteria:

- Exudation of mucopurulent, mucoid, cloudy, white or curdy discharges from the cervical canal.
- Low backache, dysuria, dyspareunia
- Hypertrophied and congested cervix.
- Presence of Nabothian follicles.
- Velvety appearance of the cervix.
- Tenderness of the cervix on touch.

Following investigations were carried out in each patient.

### Specific Investigations

- **USG-Pelvis:** To exclude the pelvic pathology.

- **Pap smear:** It is a medical procedure in which a sample of tissue from cervix is collected and spread on a slide. The cells are examined under a microscope for pathologic changes.
- **Cervical swab culture:** The ectocervix wiped clean with a large swab and samples of endocervical secretions obtained using the microloop technique than smeared directly onto slides for screening of infectious organism. It is repeated after treatment in those patients who have positive before.
- Diseases such as VDRL, HIV I & II etc. was excluded by using specific tests on the patients.

#### ➤ **Safety Profile**

The ESR, LFT and RFT were used as safety parameter once at baseline and once after completion of trial to ensure the safety of the test drug.

#### ➤ **Routine Investigations**

Hb%, TLC, DLC, ESR, RBS and urine analysis were done once at baseline and repeated after completion of trial.

#### **Criteria for selection of the drug**

The test drug *Irsa* (*Iris ensata*) was provided by the pharmacy of National Institute of Unani Medicine. Before preparing the formulation, drug was properly identified from Regional Research Institute (Ay.) Bangalore, (RRCBI/Mus. 5-39).

#### **Dosage and Preparation**

*Irsa* was given in the form of *majoon*, 10 gm in two divided doses after menses for 15 days for three cycles. Extract of *Irsa* (10ml) used locally in the form of *humool* OD after menses for 15 days for three cycles.

RESULTS AND DISCUSSION

Subjective parameters	Before treatment		After treatment		No. of cases improved	%age
	No. of cases	%age	No. of cases	%age		
Discharge P/V	30	100	17	56.7	13	43.3
Abnormal vaginal Odour	9	30	0	0	9	100
Low Backache	30	100	14	46.7	16	53.3
Lower abdominal pain	29	96.7	8	27.6	21	72.4
Dyspareunia	14	46.7	2	14.3	12	85.7
Dysuria	22	73.3	3	13.6	19	86.4
Post coital Bleeding	2	6	0	0	2	100
Pruritis vulvae	25	83.3	5	20	20	80

- ❖ Low backache was present in 30 (100%) patients, lower abdominal pain in 29 (96.7%) patients and dyspareunia in 14 (46.7%) patients at first visit. This may be due to local infection and inflammation. Low backache was relieved in 16 (53.3%) patients, lower abdominal pain was relieved in 21 (72.4%) patients and dyspareunia was relieved in 12 (85.7%) patients. This may be attributed to *musaffi* and *mohallil* warm properties of *Irsa* [16,17]. *Irsa* have been reported to possess antimicrobial activity. As it contains tannins and flavonoids which inhibit the growth of many microorganisms like bacteria, fungi, yeast etc. and relieves inflammation [18,19] and also helps in inhibition of biochemical pathways related to pain or inflammation transmission [18].
- ❖ Abnormal vaginal odour was present in 9 (30%) patients and pruritis vulvae in 25 (83.3%) patients in first visit. After the completion of the treatment 9 (100%) patients had shown improvement in abnormal vaginal odour. Relief in abnormal vaginal odour is due to

antibacterial activity of test drug [19]. It may be due to *musaffi* and *jali* property of *Irsa* as malodors is produced due to *ufoonat* [4,5,20]. Relief in pruritis vulvae was observed in 20 (80%) patients. This may be attributed to the *musaffi* and *jali* properties of the drug so it cures all types of itching. It has antifungal property also [19].

- ❖ Dysuria was present in 22 (73.3%) patients at first visit. It was relieved in 19 (86.4%). It may be due to *mudirre bole* and *mohallil warm* properties of the drug [5,16,21,22]. The drug contains flavonoids which are useful for the relief of pain or inflammation [18].
- ❖ All the patients i.e. 30 (100%) complained of vaginal discharges. After the completion of treatment 13 (43.3%) recovered completely. On per speculum examination 30 (100%) patients had cervical discharge at the beginning of trial. After the completion of treatment 15 (50%) had shown improvement. The drug contains tannin due to which it exhibit astringent property and dries the discharge. It has an also anti-inflammatory and antibacterial property which inhibits the growth of microorganism thus preventing the source of discharge [16,19].
- ❖ Cervical swab culture was positive in 5 (16.7%) patients at the beginning of trial. After the completion of treatment 4 (80%) patients had shown improvement. This may be attributed to the *musaffi*, *jali* and antimicrobial activity of the test drug [19].

## CONCLUSION

On the basis of above observation it can be concluded that this drug is very effective in relieving the symptoms and signs of cervicitis. The test drug is cheaper, easily available and well tolerated by the patients without having any side effects. It can be inferred that the research drug has affected on the clinical parameters through its effect on cervicitis.

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