



CLINICAL EFFICACY OF HIJAMAH BIL SHART (WET CUPPING) IN POLYCYSTIC OVARIAN SYNDROME: A RESEARCH ARTICLE

Arsheed Iqbal *	P.G.Scholar (Research Officer –Scientist III) - Regional Research Institute of Unani Medicine, Naseem Bagh , University of Kashmir, Srinagar , Jammu and Kashmir, India *Corresponding Author
Afroza Jan	DUMC , Deoband U.P India.
Md.Sheeraz	Research officer (Unani)- - R.R.I.U.M., Srinagar ,J&K,India.
Haider Ali Quraishi	P.G.Scholar (Unani Medicine)- R.R.I.U.M., Srinagar ,J&K,India
Arjumand Shah	Research officer (Unani)- - R.R.I.U.M., Srinagar ,J&K,India
Huma	Research officer (Unani)- - R.R.I.U.M., Srinagar ,J&K,India
Raheem A	Research Officer (Scientist-IV) - CCRUM , Ministry of AYUSH , New Delhi

ABSTRACT

Polycystic Ovarian Syndrome (PCOS) is the commonest endocrinopathy along with women of reproductive age with a ballpark prevalence of about 4 to 12%. It is an enduring multisystem genetic disorder and is traditionally first noticed in puberty as menstrual irregularities and weight gain. The management of PCOS is bounded by many controversies. The option of treatment depends upon the symptoms the patient presents with. There is a capacity for alternative management of the disease. In Unani system of Medicine Polycystic Ovarian Syndrome is mentioned under the headings of Amenorrhea, Obesity and other phlegmatic disorders. (Eminent Unani physicians have attributed *Marz Akyas Khusyatur Rehm* (Polycystic Ovarian Syndrome) with Clinical features like amenorrhea, obesity, oligomenohoea as phlegmatic disorder). Zakaria Razi (860-925AD) described that women with PCOS can present with the clinical features of amenorrhea, hoarseness of voice and hirutism. Unani physicians attributed *Marz Akyas Khusyatur Rehm* (Polycystic Ovarian Syndrome) to dominance of *Balgham* (phelgm). Different treatment modalities have been proposed to resume normal menstrual flow as it is considered to be the root cause of many ailments. One such mode is through *Hijamah mae shurt* (wet cupping therapy).

KEYWORDS : Wet Cupping, Pcos; *Hijamah Mae Shurt*; Unani, *Marz Akyas Khusyatur Rehm*

INTRODUCTION

The *Marz Akyas Khusyatur Rehm* (Polycystic Ovarian Syndrome) is one of the most common causes of oligo-ovulatory infertility¹ and it is the most common endocrinopathy affecting premenopausal women.^{2,3} It starts appearing at 15 to 25 years of age & it may take years for its clinical presentation to appear. Over all incidence of *Marz Akyas Khusyatur Rehm* (Polycystic Ovarian Syndrome) is 4% to 22% in women & 50% of women seen at infertility clinics.^{4,5} It is an incompletely understood enigmatic disease of heterogeneous nature. It is characterized by oligomenorrhoea, obesity, hyperandrogenism and infertility. The condition appears to have a genetic component^{6,7,8,9} and those affected often have been both male and female relatives with adult onset diabetes, obesity, elevated blood triglyceride, high blood pressure and female relative with infertility, hirsutism and menstrual problem.¹⁰ The editors coroner of infertility and sterility (June 1995) suggested that hyperandrogenemic chronic anovulation (HCA) is the correct name for this disease as the most consistent features are hyperandrogenemia and chronic anovulation.¹¹ During the reproductive years, PCOS is associated with increased morbidity including abnormal bleeding, infertility, increased pregnancy loss and other complications of pregnancy such as gestational diabetes mellitus.¹² Women with PCOS also have an increased risk of endometrial carcinoma because of long standing unopposed estrogen stimulation¹³. Although PCOS is known to be associated with reproductive morbidity, diagnosis is especially important because PCOS is now thought to increase metabolic and cardiovascular risks such as atherosclerosis, coronary artery disease, myocardial infarction, these risks are strongly linked to insulin resistance and subsequent hyperinsulinemia and are compounded by the common occurrence of obesity, although insulin resistance and its associated risks are also present in non obese women.¹⁴⁻¹⁹ Women with PCOS are at increased risk of impaired glucose tolerance, type 2 diabetes mellitus and hypertension²⁰⁻²² Hence PCOS must be diagnosed and treated at any point of time irrespective of the desire to conceive. There is a wide spectrum of

clinical manifestation of *Marz Akyas Khusyatur Rehm* (Polycystic Ovarian Syndrome); these may vary from skin changes such as acne, hirsutism, or alopecia to menstrual abnormalities as dysfunctional uterine bleeding, oligomenorrhoea, recurrent miscarriage and infertility. Clinically the most common symptoms associated with PCOS are menstrual irregularities (90%), hirsutism (50-80%) depending upon 5 α reductase activity in skin, infertility (75%) and obesity in approximately 50-60% of subjects. PCOS is essentially biochemical diagnosis with either hypergonadotropic or hyperinsulinemic state, since the advent of endovaginal sonography is more practical approach to morphological diagnosis has been popular. A gradation of thecal hyperplasia has been encountered in PCOS subjects, since both LH and insulin act at the thecal compartment of ovary to cause hyperandrogenemia. Moreover, the small and intermediate follicle predominate the PCOS scenario and the gradually proceed to atresia rather than the follicular dominance.²³ These two entities namely homogenous polyfollicular enlargement and thecal hyperplasia are well definable endosonographic landmarks of PCOS ovaries. More over the state of endometrial stimulation, proliferation of hyperplasia will also be evaluated at pelvic scan. In Unani system of Medicine Polycystic Ovarian Syndrome is mentioned under the headings of Amenorrhea, Obesity and other phlegmatic disorders. (Eminent Unani physicians have attributed *Marz Akyas Khusyatur Rehm* (Polycystic Ovarian Syndrome) with Clinical features like amenorrhea, obesity, oligomenohoea as phlegmatic disorder). Zakaria Razi (860-925AD) described that women with PCOS can present with the clinical features of amenorrhea, hoarseness of voice and hirutism²⁴. Unani physicians attributed *Marz Akyas Khusyatur Rehm* (Polycystic Ovarian Syndrome) to dominance of *Balgham* (phelgm). Ibn-e-Rushed described that *Marz Akyas Khusyatur Rehm* is a disease of cold and moist nature and arises due to change in quantity and quality of balgham. Buqrat (Hippocrates), Ibn-e- Habal Bagdadi, Ali Ibn-e- Abas Majoosi , Rabban Tabri attributed PCOS due to pathology in liver (*Sue Mizaj Kabid*) liver

dysfunction which may lead to abnormal production of *Balgham* (phlegm).²⁵⁻²⁷. Abnormal form of *Balgham* is divided on the basis of consistency and taste. On the basis of consistency one type is *Balgham Mayi* which is responsible for causing the *Marz Akyas Khusyatur Rehm* (Polycystic Ovarian Syndrome). So it can be concluded that PCOS arise due to predominance of *Balgham* in the body which leads to the cyst formation in the ovaries, amenorrhea and obesity. Seeing on current trends, *Marz Akyas Khusyatur Rehm* (Polycystic Ovarian Syndrome) will become a major cause of infertility, therefore the need for an effective treatment protocol is becoming increasingly urgent. In conventional medicine treatment of PCOS is adapted according to a specific cause; goals of therapy include ameliorating hyperandrogenic symptoms by use of anti-androgen drugs, inducing ovulation, regulating menstruation and preventing cardio-metabolic complications.²¹

Al-hijamah (Cupping therapy):

Cupping therapy is an effective method for extraction of harmful substances from the body. In this process specially designed cups are applied over a particular area and the negative pressure is build in. This facilitates the correction of the *mehjoom* (involved organ).[10] Depending upon the scarifications, it is of two types; *Hijama bila shurt* (dry cupping) and *Hijamah mae shurt* (wet cupping).

Hijamah mae shurt: It is a minor surgical eliminatory procedure where negative pressure (suction force) is applied to the skin surface using cups. Scarifications of the skin uplifting opens skin barrier for the evacuation of fluids admixed with pathogenesis causing substances. Wet cupping therapy is considered as a mode of treatment where humoral imbalance is involved.²⁸ For *ehtebase tams* multiple incisions (25to30) are applied over the calf muscles and the blood is sucked through application of cups.

MATERIAL AND METHODS

This pilot prospective study was conducted at RRIUM, Srinagar from December 2015 to December 2016. Patients were referred from OPD section. Inclusion criteria patients with ultrasonographic finding of PCOS and 20-50 years of age. Exclusion criteria: women who were menopausal, and any malignancy. Informed consent was obtained from all patients and participation was voluntary. Upon inclusion in the study, an interview with the participant was done. Blood tests were done at the initial visit which included a complete blood count with differential and hormonal profile (FSH, LH, Estradiol, Progesterone, TSH) if not done already.

Procedure of Trial

Prior to the procedure, the following investigations were done to rule out the exclusion criteria. Full patient history, Random blood sugar (RBS), hemogram (Hb%), BT, CT, Ultrasonography. A standard cupping therapy equipment was procured and utilized including a hand suction pump and plastic cups set. The patient was pose to lie down. The calf muscle area was washed using 10% povidone iodine solution and cupping area was marked. Then the cups (two cup over each calf muscle) were applied to produce hyperemia. After 5 to 10 minutes the cups were take away and 25 to 30 deep scarifications were given over the hyperemic skin. With manual pumping the cups were applied again with maximum negative pressure. The cups were retained for over 5 to 8 minutes. Thereafter, the pressure was released and the blood was collected in the measuring glass beaker to record the amount of blood extracted. The schedule of therapy was one month. Four sitting of *hijama mae shurt* were planned in each month (weekly once). Her vitals were recorded and under all aseptic precautions wet cupping therapy was performed.

Statistical Methods

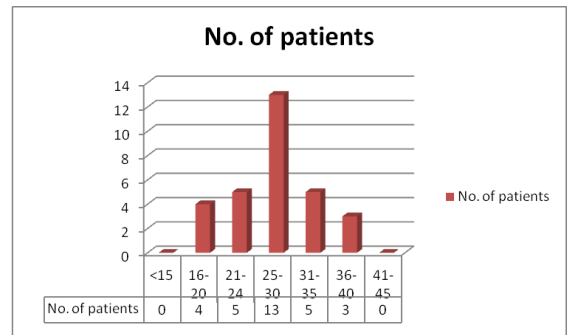
Descriptive and inferential statistical analysis was carried out in the present study. Result on continues measurements were presented by Mean±SD (Min-Max) and result on categorical measurements were presented in number(%) Paired „t“ test, Chi square test and One Way Anova were used. A 0.05 level was used to define statistical significance. The statistical softwrenamely SAS 9.2, SPSS 15.0, Stata

10.1, Med Calc 9.0.1, Systat12.0 and R environmentver.2.11.1 were used for the analysis of the data and Microsoft and Excel have been used to generate tables.

RESULT

Table 1: Distribution based on Age

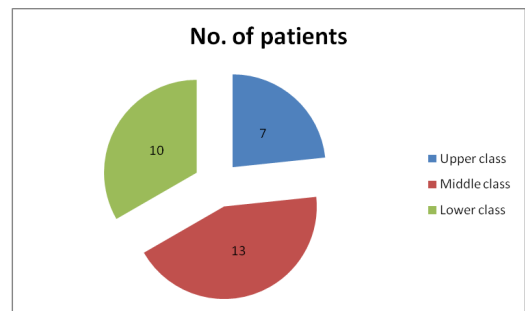
Age (in years)	No. of patients
<15	0
16-20	4
21-24	5
25-30	13
31-35	5
36-40	3
41-45	0



Graph 1: Distribution based on Age

Table 2: Distribution based on Socio economic status

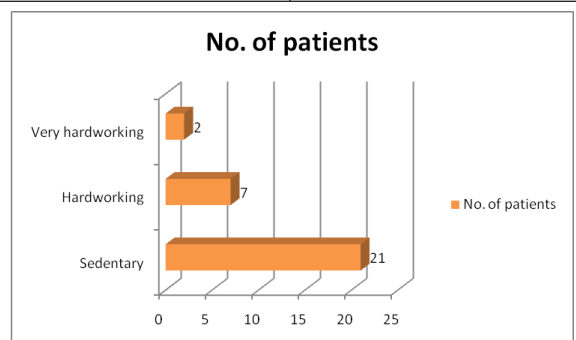
Socio economic status	No. of patients
Upper class	7
Middle class	13
Lower class	10



Graph 2: Distribution based on Socio economic status

Table 2: Distribution based on Life style

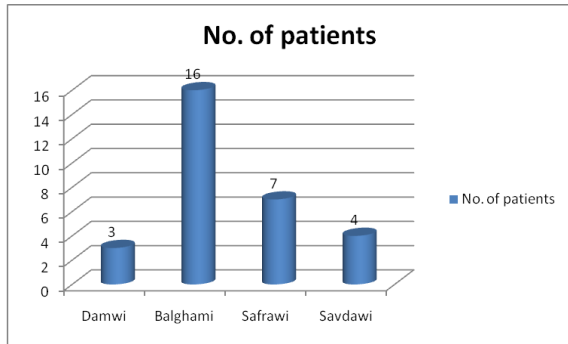
Life style	No. of patients
Sedentary	21
Hardworking	7
Very hardworking	2



Graph 2: Distribution based on Life style

Table 3: Distribution based on Temperament

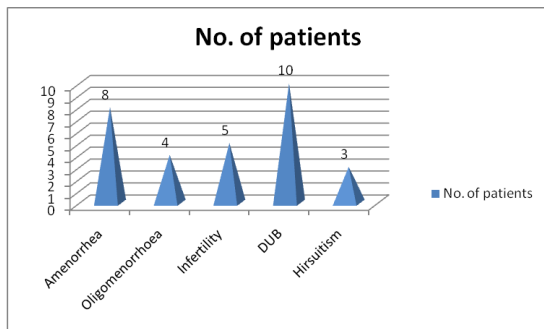
History of Temperament	No. of patients
Damwi	3
Balghami	16
Safrawi	7
Savdawi	4



Graph 3: Distribution based on Temperament

Table 4: Distribution based on Chief Complaint

Based on Chief complaint	No. of patients
Amenorrhoea	8
Oligomenorrhoea	4
Infertility	5
DUB	10
Hirsutism	3



Graph 4: Distribution based on Chief Complaint

Table 5: Levels of measured hormones before and after Hijama.

Hormonal profile	before Hijama	after Hijama	p value
LH/FSH ratio	8.468	5.962	0.001
Prolactin	305.94	211.94	0.01

Table 6: Effect of Hijama on USG Findings before and after

USG Before Hijama	USG After Hijama
30	18

DISCUSSION

Al Hijamah is a type of regimenal therapy used to regulate menstruation cycle. In present study, wet cupping therapy produced significant improvement on various symptoms and signs like to regulate normal menstruation cycle, decrease weight and to regulate normal hormonal profile. But there was no effect on the acne and hirsutism pre and post-treatment groups. Besides, the therapy was found to be safe and well tolerated as no adverse effects were noticed during and after the treatment and overall compliance to the therapy was good. In ancient terms, the effectiveness of cupping therapy in PCOS might be due to increase blood flow towards uterus. This is in consonance with the description of cupping therapy proposed by Razi, (Rhazes), Jurjani and Ibne Sina (Avicenna).²⁵⁻²⁷ Cupping is an ancient method of causing local congestion to treat various diseases especially neuro-muscular and joint disorders. A partial vacuum is created in cups placed on the

skin either by heat or suction. which draws up the underlying tissue. The skin and underlying tissue swells and becomes warm, and gets sucked into the cup. This produces blood congestion at the site and stimulates circulation. Cupping is a form of derivation therapy, which means drawing away the vital energy or substances from the site of blockage or obstruction. Cupping acts by improving the circulation of blood, and other vital fluids such as lymphatic fluids and by breaking up and dispersing blockages and congestion of offending waste matter, toxins and morbid humors. Cupping locally stimulates the sensory nerves of the skin improves the eliminative functions of wastes from the body which may cause disease. Wet cupping therapy may have an effect through different mechanisms: central effect on the hypothalamic-pituitary ovarian axis (beta-endorphin levels which affect GnRH secretion, and gonadotropin levels), and a peripheral effect on the uterus itself.

References

- Hull M.G.R. Epidemiology of infertility & polycystic ovarian disease: endocrinological & demographic studies. *Gynecological Endocrinology* 1987; 1:235-245.
- Franks S. Polycystic ovary syndrome. *N.Engl J Med* 1995; 333:853-859.
- Goudas VT, Dumesic DA. Polycystic ovary syndrome. *Endocrinol Metab Clin North Am* 1997; 26:893-912.
- Nagamani Peri, Deborah Levine. Sonographic evaluation of the endometrium in patients with history of or an appearance of polycystic ovarian syndrome. *J ultrasound Med.* 2007; 26:55-58.
- Belinda MS, Richard PD. Polycystic ovarian syndrome & the metabolic syndrome. *Am J Med Sci* 2005; 330(6): 336-342.
- Govind A, Obhrai MS, Clayton RN. Polycystic ovaries are inherited as an autosomal dominant trait: analysis of 29 polycystic ovary syndrome & control families. *J Clin Endocrinol Metab* 1999; 84:38-43.
- Calvo RM, Villuendas G, Sanchoj, San Millan JL, Escobar Morreale HF. Role of the follistatin gene in women with polycystic ovary syndrome. *Fertil Steril* 2001; 75:1020-1023.
- Jahanfar S, Eden JA, Warren P, Seppala M et al. A twin study of polycystic ovary syndrome. *Fertil Steril* 1995; 63:478-486.
- Hague WM, Adam SJ, Reeders ST, Peto TEA, Jacobs HS. Familial polycystic ovaries: a genetic disease? *Clin Endocrinol* 1988; 29:593-605.
- Melissa D. Kahsar-Miller, PhD, Christa Nixon, Larry R. Boots, Rodney C. Ricardoz MD. Prevalence of Polycystic ovary syndrome in first degree relatives of patients with PCOS. *Fertil Steril* 2001; 75:53-58.
- Nestler JE. Polycystic ovary syndrome: a disorder for the generalist. *Fertil Steril* 1998; 70:811-812.
- Lanzome A, Caruso A, Di Simone N, De Carolis S, Fulghesu AM, Mancuso polycystic ovary disease. A risk factor for gestational diabetes? *Reprod Med.* 1995; 40:312-316.
- Coulam CB, Annegers JF, Krans J, Chronic Anovulation syndrome & associated neoplasia. *Obstet Gynecol* 1983; 61: 403-407.
- Nestler JE. Insulin regulation of human ovarian androgens. *Hum. Reprod.* 1997; 12 Suppl:53-62.
- Dunaif A, Finegood DT. Beta Cell dysfunction independent of obesity and glucose intolerance in the polycystic ovary syndrome. *J Clin Endocrinol Metab* 1996; 81: 942-947.
- Dahlgren E, Janson Po, Johansson S, Lapidus L, Oden A. Polycystic ovary syndrome & risk for myocardial infarction. Evaluated for a risk factor model based on a prospective population study of women. *Acta Obstet Gynecol. Scand* 1992; 71: 599-604.
- Conway GS, Agrawal R, Betteridge DJ, Jacobs HS. Risk factor for coronary artery disease in lean & obese women with polycystic ovary syndrome. *Clin Endocrinol* 1992; 37: 119-125.
- Pierpoint T, McKeigue PM, Issacs AJ, Wild SH, and Jacobs MS. Mortality of women with PCOS at long term follow up. *J Clin Epidemiol* 1998; 51: 581-586.
- Rexrode KM, Carey VJ, Hennekens Ch, Walter EE, Colditz GA, Stampfer MJ, et al. Abdominal adiposity & coronary heart disease in women. *JAMA* 1998; 280: 1843-1848.
- Ehrmann Da, Barnes RB, Rosenfield RL, Cavaghan MK, Imperial J. Prevalence of impaired glucose tolerance & diabetes in women with PCOS. *Diabetes Care* 1999; 22: 141-146.
- Shamiss A, Carroll J, Rosenthal J. Insulin resistance in secondary hypertension. *Am J Hypertens* 1992; 5:26-28.
- Jaatinen TA, Koskinen P, Matin Lauri I, Erkkole R, Anttila L, Irjala K. Serum total rennin is elevated in women with PCOS. *Fertil Steril* 1995; 63:1000-1004.
- Fausser BC. Observations in favour of normal early follicular development & disturbed dominant follicle selection in polycystic ovary syndrome. *Gynecol endocrinol* 1994; 8:75-78.
- Razi ABZ. *Al Hawi-Fil-Tib*, Vol. IX. New Delhi: CCRUM; 2001: 151-68.
- Ibn-e-Hubal Baghdadi. *Kitab-al-Mukhtar* Fil Tibb, Vol II & Vol IV. New Delhi: CCRUM; 2007: Vol II 50-51, 57-58, 74-75, 77-78, 100-101, 112-113, 213-215. Vol IV 31-35.
- Majoosi ABA. *Kamil-us-Sanaa* (Urdu translation by Kantoori GH) Munshi Nawal Kishore, Lucknow. 1889: 110-112, 486-488
- Mohammed Tabri, *Moalijat e Buqratiya* (Urdu), Part 3rd CCRUM, New Delhi Page No. 215-216.
- Akhtar J, Siddiqui MK. Utility of Cupping Therapy in Unani Medicine. *Indian Journal of Traditional Knowledge*, 2008, 7(4); 572-574