

Effect of Unani Formulations in the Management of Unexplained Primary Infertility- A Case Report

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ABSTRACT:

Infertility (*Uqr*) is customarily defined as the inability to conceive after 1 year of regular unprotected intercourse. 30% of infertile couples worldwide are diagnosed with unexplained or idiopathic infertility and the problem is defined as the lack of an obvious cause for a couple's infertility and the females' inability to get pregnant after at least 12 cycles of unprotected intercourse or after six cycles in women above 35 years of age for whom all the standard evaluations are normal. In unani literature various medications have been mentioned for infertility. Here we present a case of primary infertility. The couple were trying to conceive for a period of 3 years. Thorough physical and laboratory investigations were done to rule out the cause which came out as unexplained primary infertility. Unani medications like *Safuf Moaene hamal*, *ma'jun-i-mocharas*, *Khamira gaozaban saada* and *Sharbat zanjabeel* were given continuously for 3 months. Patient got conceived after receiving treatment for 3 months continuously. Above mentioned medications have assisted in conception which contains *Muqanwi-i-bab* activities, chemical constituents like tannins, Lupeol, Shamimicin, withaferins, sitoindosides and various useful alkaloids and multivitamins.

KEYWORDS: *Safuf Moaene hamal*, Unani, Unexplained primary infertility, *Uqr*.

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INTRODUCTION:

The definition of infertility is as not being able to conceive even after engaging in unprotected sexual activity for a year. It can be primary, meaning that conception has never happened, or secondary, meaning that a pregnancy test has previously been positive

but hasn't necessarily resulted in a live birth.¹ Most couples who seek specialised treatment approaches for infertility because it causes them great distress. While most of these couples do not have absolute sterility, they do have reduced fertility and are likely to conceive naturally. It is anticipated that 84%

of women will conceive within 12 months, and 92% within 24 months. Based on population-based research, 10-15% of couples may become infertile, and approximately 8% of those couples will go on to become pregnant without the need for additional medical intervention. Of the remaining 8% of couples are in need of fertility clinic treatments, half (4%) are infertile due to primary infertility, and the other half are infertile due to secondary causes.²

Infertility has been linked to a number of factors, both male and female. Inadequate penetration and mechanical difficulties during coitus are frequently linked to the male's inability to sustain an erection and intervals of seclusion that prevent copulation during the most fertile period. Impotence, premature ejaculation, azoospermia/oligospermia, poor sperm motility are among the male factors that account for 40% of cases. Around 45% of cases are caused by female factors, which include tubal defects (infection may close or partially obstruct), ovarian dysfunction (a) irregular or non-occurring ovulation (b) polycystic ovary syndrome (c) hyperprolactinaemia (d) perimenopausal (e) premature ovarian failure. Intact hymen (a woman may complain of subfertility when her marriage has not been consummated.), Vagina (congenital malformation) Uterus (congenital malformation, or tuberculous endometritis).³ Infertility can have a variety of causes, including acquired causes like metritis, uterine inversion, salpingitis, amenorrhoea, polymenorrhoea, vaginal discharge, anaemia, syphilis, and gonorrhoea, as well as congenital defects of the uterus and ovaries like small uterus and small ovaries, closure of the external Os etc as per unani literature⁴. The term "unexplained infertility" refers to a couple's infertility when there is no

clear cause identified and the female's inability to conceive after at least 12 cycles of unprotected sexual activity, or after six cycles in women over 35 who meet all standard evaluation criteria. It is estimated that 30% of infertile couples globally have this diagnosis.^{5,6}

The ESHRE guidelines state that semen analysis, luteal phase and ovulation assessment, and tubal patency assessment by hystero-salpingogram or laparoscopy are required tests for infertility that cannot be explained. On the other hand, opinions regarding the usefulness of post-coital testing, ovarian reserve (AMH, AFC), endometrial biopsy, and serum prolactin levels are debatable. The fact that the causes of this type of infertility cannot be determined, does not imply that the disorder has no clear cause. Further investigation is required to identify additional potential causes of infertility, including dysfunctions of the ovaries and testicles, sperm and oocyte quality, fallopian transport defects, endometrial receptivity, implantation failures, and endometriosis.^{7,8} According to estimates from the World Health Organisation, 80% of people globally rely on herbal medicines for their primary healthcare needs because of their safety, effectiveness, and low side effect rates. Many formulations for the treatment of infertility have been mentioned in classical Unani literature.⁹ The Greek and Arab medical systems are combined to form the Unani system. The illness was initially categorised by unani doctors using various physiological and anatomical signs and symptoms of the body. Hippocrates clarified that the illness was a natural process and that the body's response to it was causing the symptoms. According to Unani literature, small uteruses, closure of the external Os, small ovaries, and other congenital abnormalities of the uterus and ovaries cause

infertility. Sometimes the body experiences a change in temperament (increased coldness) as a result of increased phlegm, which weakens the uterine ability to retain fluids and prevents pregnancy.⁴

Infertility can have a male-only or female-only cause, or it can have both. There are six different kinds of causes. [1] a male or female *Mani* (sperm) defect, or insufficient sperm [2] a temperamental shift, the predominant causes of *Su' Mizaj al-Rahim* are excessive *barudath* (coldness) or *yabusat* (dryness). [3] *inqibaaʿe i-Majari*, or canal tightness [4] the male genital organ's incapacity to facilitate sperm penetration at the actual position [5] anxiety, weakness in the digestive system, impairment of the brain, heart, and liver [6] early ejaculation.¹⁰

We present a case of impact of unani medications in spontaneous conception of unexplained primary infertility.

CASE HISTORY:

A married couple [female 27 years and Male partner 33 years] came to Gynec OPD of NIUM, Bengaluru with complaints of anxious to conceive since 3 years. The couple has been married for 3 years and have been trying since then to conceive spontaneously but were disappointed. The patient had regular menstrual cycle of 25-30 days with moderate flow for 3-4 days with no history of dysmenorrhea or passing clots. The couple had never approached for treatment before anywhere. She had moderate built with no significant medical or surgical history. There was no history of consanguineous marriage or infertility in the family of either partners. The patient was housewife belonging to low socioeconomic class with no history of STD's, smoking, alcohol or drug intake. She had no history of lifestyle disorders like diabetes mellitus or hypertension or thyroid dysfunction or tuberculosis or bronchial

asthma or mumps or white discharge p/v/ or weight gain or galactorrhea. The patient's partner also reported good health with no h/o loss of erection/orchitis/loss of libido. He had no prior urogenital infections or STI's and no significant medical or surgical history. He was a painter with history of tobacco chewing since 10-12 years and had no habits of smoking, alcoholism or drug intake etc. The couple use to have vaginal intercourse 2-3 times/ week with no history of pain during intercourse or post coital bleeding.

On physical examination she was conscious, coherent and cooperative. Her vitals were stable.

Her BMI was within normal range. . On systemic examination, no abnormality detected.

On gynecological examination, vulval skin was healthy P/S revealed no vaginal or cervical abnormalities and on P/V exam uterus was anteverted, normal size, non-tender, mobile ,fornices were free.

Investigations: On first visit woman was advised hemoglobin percentage, Fasting blood sugar, thyroid profile, USG pelvis, HSG on day 9 of menstrual cycle and Husband semen analysis

Hb – 10.2 gm%, FBS- 95mg/dl, T3- 1.16ng/ml,T4-7.63microg/dl

TSH-3.40Uiu / ml, USG showed normal study

Semen analysis showed normal seminogram, HSG showed normal study with patent tubes

THERAPEUTIC INTERVENTION:

After all basic and necessary investigations .She was advised

Ma'jūn-i-mocharas 6gm bd

Sharbat zanjabeel 20ml bd

Khameera gaozaban saada 6gm bd

Safuf Moeene hamal 6gm bd from D5 to D10 of menses with milk for 3 months.

Iron supplement like Tab Orofer XT(ferrous sulphate) od was also prescribed to combat mild anemia

She was advised to have intercourse during unsafe period, maintain healthy lifestyle.

Her husband complained of lower back ache. He was referred to a male doctor in the same hospital and was on following medications for a span of 15 days. *Ma'jūn-i-mocharas* 6gm bd

Ma'jūn-i-falasafa 6gm bd

Roghan hafte berg for L/A

Safuf Sath-i-gilo 6gm bd

Habb Kabid-i-Noushadri 2 bd

He discontinued the medications after 15 days as he felt relief.

After 3 months of continuous treatment and every fortnight follow up she missed her

period in April and did UPT at home on 24th which came as positive

Confirmatory scan was done on 25th of April which showed SLIUG of 6 weeks one day.

Women complained of bleeding per vaginum at 8 weeks of gestation. Emergency Obs scan was done which showed single live intrauterine gestation of 8 weeks with FHR 171 BPM with no signs of sub chorionic hemorrhage. She was prescribed capsule Susten 100mg BD for one month after gynecologist consultation and bed rest, avoidance of intercourse. Rest of her pregnancy period was uneventful. Woman delivered vaginally at term a healthy neonate on 22nd Dec 2023 in a private hospital.

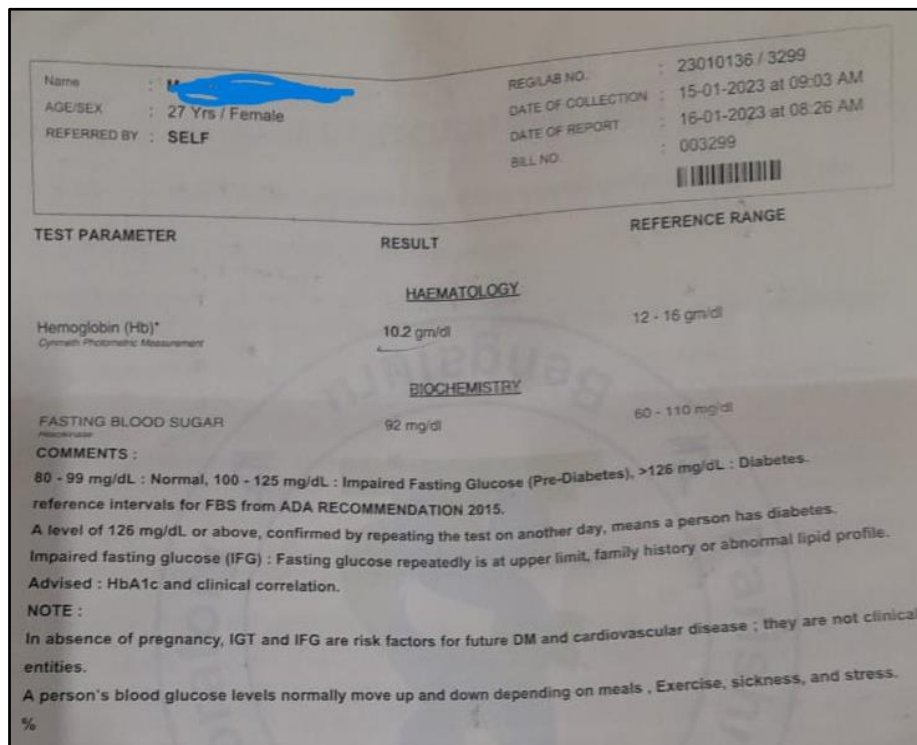


Figure-1: Haemoglobin and fasting blood sugar

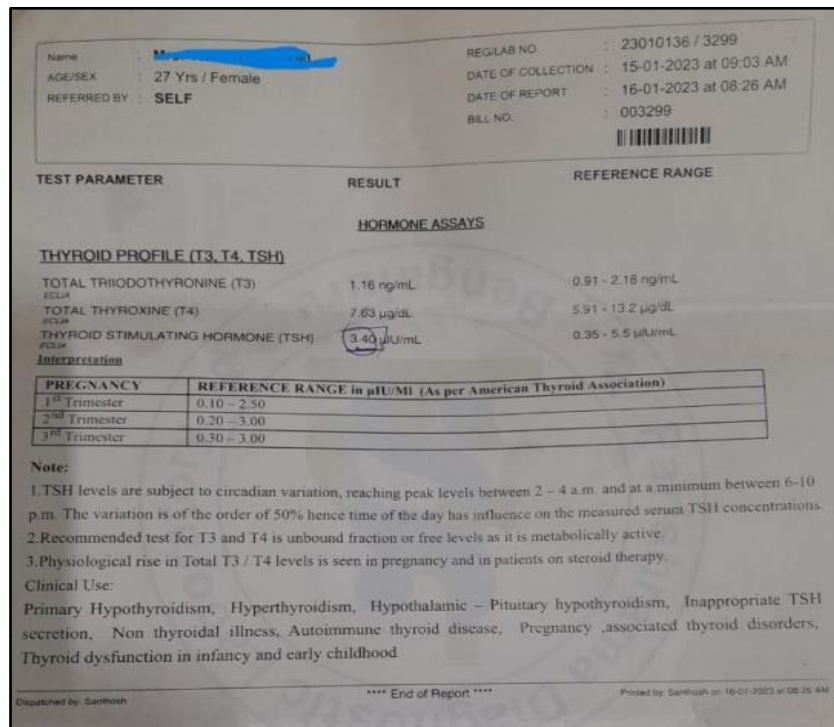


Figure-2: Thyroid profile

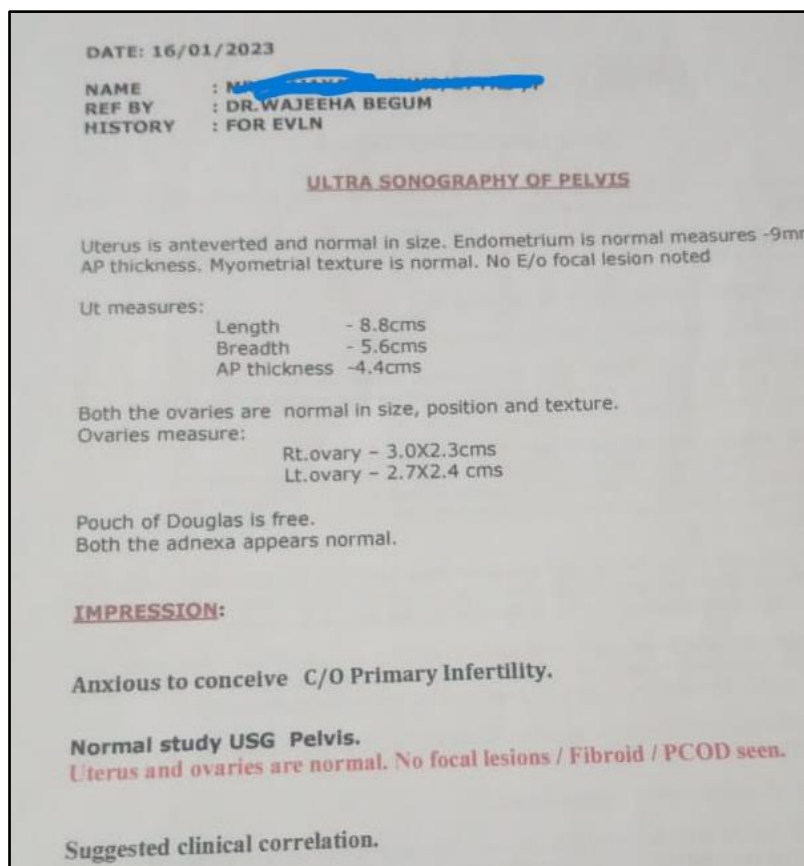


Figure-3: Ultrasonography (USG) pelvis

NIRNAY DIAGNOSTIC CENTRE
(COMPUTERISED LABORATORY)

Name: [REDACTED] Ref by: DR. NIUM
Age/sex: 33(yrs) Male Date: 06/02/2023
Reg No: D22486

Test Name	Observed Values	Reference Range
CLINICAL PATHOLOGY REPORT		
SEMEN ANALYSIS		
Mode of Collection	MASTRUBATION	
Time of Collection	9-15 AM	
Time of Recipients	9-30 AM	
Abstinence	3 Days	> 2.0 ml
Volume	2.0 ml	Grey-opalescent
Appearance	Grey opalescent	7.2-8.0
Reaction pH	8.0	Normal
Viscosity	Normal	< 60 min
Liquefaction time	30 min	> 20 milli/ml
Sperm Count	70 milli/ml	
Motility :		
Active Motility	55%	
Sluggish	15 %	
Non Motility	30 %	
Pus cells	10-12/hpf	Nil
Epithelial Cells	-	Nil
RBC's	0-1/hpf	Nil
Normal	80 %	
Abnormal	20 %	
Head Defect	12 %	
Tail Defect	08 %	
IMPRESSION : NORMAL SEMINOGRAM		

-----End of Report-----

Lab Technologist: [Signature] Pathologist: [Signature]

FOETAL SEX DETERMINATION IS ILLEGAL AND IS NOT

Figure-4: Husband's semen analysis

NATIONAL INSTITUTE OF UNANI MEDICINES
(An Autonomous Organization Under Ministry of AYUSH, Govt. of India)
Kottige Palya, Vishwaneeadam Post, Bengaluru - 560091. (Accredited to NABH)

X-RAY REPORT

NAME: [REDACTED] DATE: 17-02-23
AGE/SEX: 27/F X-RAY NO: 5367
REF BY DR: PROF WAJEEHA BEGUM OP/IP/CR NO: 771808

H S G REPORT

UTERUS:
Uterus is well delineated with contrast
No evidence of filling defect / congenital anomalies

FALLOPEAN TUBES:
Bilateral fallopian tubes are well delineated with contrast
Evidence of peritoneal spillage is seen bilaterally

IMPRESSION:
NORMAL STUDY

RADIOLOGIST: [Signature]

Figure-5: Hysterosalpingography (HS) Report



Figure-6: Viability scan for confirmation of pregnancy

RESULTS AND DISCUSSION:

Couples who are unable to conceive for at least one year and where standard investigations fail to identify any abnormalities in ovulation, tubal patency, and semen analysis are classed as experiencing unexplained infertility.¹¹ Psychological illnesses like anxiety and depression are evaluated among many patients seeking medical treatment. Diabetes, undiagnosed thyroid disorder, some autoimmune illnesses and luteal phase defects may be the cause for unexplained infertility.⁹ According to ACOG and ASRM Imaging of the reproductive organs provides valuable information on conditions that affect fertility. Imaging modalities can detect tubal patency and pelvic pathology and assess ovarian reserve. A women's health specialist may reasonably obtain the male partner's medical history and order the semen analysis, all of which were

evaluated in this case and came to the conclusion that it is a case of unexplained primary infertility.

Following interventions consist of:

Ma'jūn-i-mocharas - In Unani System of Medicine it is used as diuretic, anti-dysenteric, emetic, antidiarrhoeal, and aphrodisiac. . It has many pharmacological activities like In-vitro Anti-inflammatory, Anti-diabetic, Anti-obesity, Hypotensive, Antioxidant, Antiangiogenic, Antimicrobial, Cytotoxicity, Aphrodisiac and Antipyretic. In Tibb-e-Unani it is used as Astringent (*Qabid*), styptic (*Habis*), aphrodisiac (*Muqanmi-i-Bah*), adipogenous (*Musammin-i-Badan*). Its Major Phytochemical Constituents are Lupeol, Shamimicin. Its temperament of root according to some scholars is hot and wet 1st degree¹²

Sharbat zanjabeel- Pharmacological action mentioned in Unani Medicine: *Muqanmie*

Meda (Stomachic), *mufatteh sudad jigar* (Remove obstruction of Liver), *bazim* (digestive), *Mushtabi* (appetizer), *muqawwiye jigar* (liver tonic), *kasir riyah / muballile riyah* (carminative), *munaqqiye balgham*, *mulaiyine shikam* (laxative), *munaffise balgham* (expectorant), *muqawwiye bah* (Aphrodisiac), *Jali*, *muballile fuzlate balghami*, *muqawwiye hafiza* (cognitive enhancer), *tiryag* (antidote), *habise ishal* (Anti diarrhoeal), *mukbriye balgham wa sauda*, *mudirre baol* (diuretic), *muballile aoram* (anti-inflammatory). Recent researches also validated the indications of Zingiber officinale rhizome in Unani Medicine such as in liver debility, oblivion, sciatica, arthritis, rheumatism, as an liver tonic, anti-inflammatory, aphrodisiac etc. Chemical constituent of Zingiber officinalis varies according to agro climatic condition green/fresh ginger gives water 80.9 %, protein, fat, fiber, carbohydrate (starch, pentosans), minerals (Ca, P, Fe), trace of Iodine and fluorine Vitamin (thiamine, riboflavin, niacin, Vitamin C, carotene), fructose, sucrose, raffinose in trace. Its temperament is *Harr* 1st degree, *Yabis* 2nd degree¹³

Khameera gozaban saada: It acts as *Muqawwi-e-Aam* (General Tonic) and it is used in *Khafqan* (Palpitations), *Zauf-e-Qalb* (Weakness of heart), *Zauf-e-Dimagh* (Weakness of Brain), *Zauf-e-Basarat* (Asthenopia), *Malikhoolia* (Melancholia).¹⁴ Some scholars have mentioned its temperament as hot and moist 1st degree¹⁵

Safuf Moaene hamal: It contains 4 drugs as mentioned in classical unani literature. *Gule Dhawa*, *Gul Nilofer*, *Baikh Piyabansa*, *Baikh Asgand*.¹⁰

Baikh Asgand (*Withania somnifera*): The plant has been widely studied for its various pharmacological activities like antioxidant, anxiolytic, adaptogen, memory enhancing, antiparkinsonian, anti-venom, anti-

inflammatory, antitumor properties. Various other effects like immunomodulation, hypolipidemic, antibacterial, cardiovascular protection, sexual behaviour, tolerance and dependence have also been studied. It is an important source of many pharmacologically and medicinally important chemicals, such as withaferins, sitoindosides and various useful alkaloids.¹⁶ Its temperament is hot and dry 3rd degree.¹⁷

Gul dhawa (*Anogeissus latifolia*): Astringent, cooling, used in diarrhoea, dysentery, ulcers, piles, urinary disorders and dysuria. Gum— used as a tonic after delivery. The leaves, bark and heartwood yield quinic and shikmic acids; leaves contain gallotannin (tannins). The young leaves and shoots contain tannins (dry basis). The bark contains tannins. Heartwood contains gallic acid, ellagic acid, its derivatives, quercetin and myricetin. The gum is mainly the calcium salt of a complex, high molecular weight polysaccharic acid (ghattic acid). The gum is a substitute for Gum arabic.¹⁸

Gul nilofer (*Nymphaea alba*): commonly known as white water lily, an aquatic flowering plant. It contains the active alkaloids nupharine and nymphaeine, and flowers possess sedative and acts as an aphrodisiac.¹⁹ Its *mizaj*/temperament is *sard o tar* (cold and moist)²⁰

Baikh piyabansa (*Barleria prionitis* Linn): A wide range of phytochemical constituents including balarenone, pipataline prionisides, barlerinoside, verbascoside, shanzhiside methyl ester, barlerin, acetylbarlerin, lupuloside, scutellarein have been isolated from the different parts of this plant. Extracts and isolated phytochemicals from this plant have been found to possess wide range of pharmacological include antimicrobial, anthelmintic, antifertility, antioxidant, antidiabetic, anti-inflammatory, anti-arthritic, cytoprotective,

hepatoprotective, diuretic, antidiarrhoeal, enzyme inhibitory and anti-nociceptive activities without any toxic effects.²¹ Its *mizaj* is hot and dry 2nd degree (*garm o kbushk*)²² All the above mentioned unani medications contains alkaloids, antioxidants, aphrodisiac, immunobooster, anti-inflammatory, liver tonic, cardiac tonic , stomach tonic and various phytochemicals and also provides strength to reproductive organs which overall improves the general , physical and mental health condition of individual and helps in increasing the chances of conception As one of the cause of infertility according to unani literature is temperamental shift of uterus to *baroodath*(coldness) or *yabusath* (dryness), *ilaj bil zidd* is applied which means opposite temperament drugs are used to correct temperamental shift. Most of the used medications have temperament hot or *harr* which might have helped in correcting temperamental shift and helped in conceiving. UPT was positive and confirmatory scan was done on 25th of April which showed SLIUG of 6 weeks one day. Couple conceived within 3 months of continuous treatment. This shows that unani medications has the potential to help couple conceive experiencing unexplained infertility.

CONCLUSION:

The present study states that combined unani medication has the potential to improve overall general, physical and mental wellbeing of women and correct abnormal temperamental shift of organs and help couple conceive experiencing unexplained primary infertility. Further research is necessary to evaluate the proper role of these medications in unexplained primary infertility.

Consent of patient:

The written consent of patient has been taken for treatment and publication without disclosing the identity of patient.

Limitation of study:

Hormonal study of either partners and follicular count study was not performed in current case report which could have given clear prospective of unexplained primary infertility

Conflict of interest: Author declares that there is no conflict of interest.

Guarantor: Corresponding author is guarantor of this article and its contents.

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