AHMEDABAD OBSTETRICS AND GYNAECOLOGICAL SOCIETY

AOGS TIMES

2021-2022

JUNE 2021 VOLUME 3

THEME : IMPLEMENTATION OF EVIDENCE BASED CLINICAL CARE

MOTTO : SWEAT, SMILE & REPEAT

President
Dr. Jignesh Deliwala
+91 98250 44819
jadeliwala@yahoo.co.in

Hon. Secretary
Dr. Munjal Pandya
+91 97129 11784
munjal171184@yahoo.co.in

International DAY OF YOGA

FOGSI President : Dr. Alpesh Gandhi

2nd Floor, Ahmedabad Medical Association Building, Ashram Road, Ahmedabad - 380009.
Phone : 079 - 26586426 I E-mail : office@ahmedabadobgyn.org I www.ahmedabadobgyn.org

TEAM AOGS MESSAGE

Dr. Jignesh Deliwala
President

Dr. Munjal Pandya
Hon. Secretary

This June, we started getting good vibes of getting normalcy back! Bravery, patience, faith are few of the many virtues we showed over past some time...

It was 2015, when the world started celebrating " વિશ્વ યોગ દિવસ ". We, as Indians have been practicing "યોગ" for past many centuries. We've been proud conveyors of this tradition to bring peace and health all across the globe.

It is said that " યોગ " is all about bringing in synchrony of " પ્રાણશક્તિ " with our physical body, making the harmonious relationship with the universe as a whole.
The image below depicts 8 sectors of " યોગ "

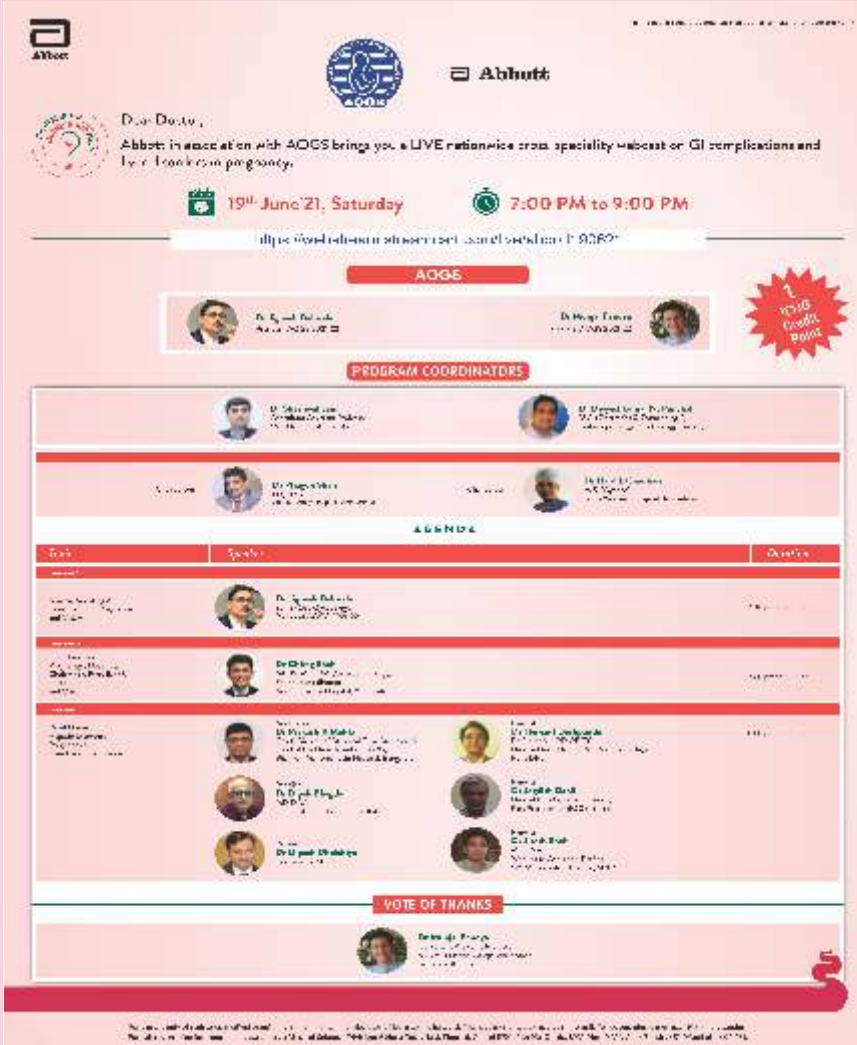
Wishing everyone happier and healthier times ahead!

Dr. Jignesh Deliwala
President

Dr. Munjal Pandya
Hon. Secretary

PAST PROGRAMME

SUDDEN FOETAL DEMISE - SOLVING THE COMPLEX CONUNDRUM - DATE : 13.06.2021



OBITUARY

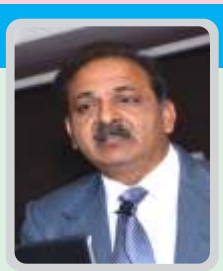
Dr. Sunil Modi

We have lost our member
Dr. Sunil Modi
We convey sincere
condolences
to his family and
our prayers
for the departed soul.

Farewell : Dr. Alpesh Gandhi Date : 25.06.2021

'We congratulate Dr. Alpesh Gandhi for successfully finishing his tenure as FOGSI President, world's **largest** Association of Obstetricians and Gynecologists; opening new horizons for every FOGSIAN and bringing FOGSI to new heights!'

CONGRATULATION



Dr. Jayprakash Shah

ICOG Appreciation Award

CONGRATULATION

Dr. Devang Kanuga

Awarded

"Inspiring Gynecologist of West India"

at ETHealthworld Fertility Conclave 2019, Mumbai
for contribution in Reproductive health

CONGRATULATION

Dr. Pragnesh Shah

ICOG Appreciation Award

CONGRATULATION

Dr. Parul Kotdawala

ICOG Appreciation Award & Appreciation Award for Valuable Services Rendered to FOGSI

Overview & Diagnosis of Gestational Diabetes.

Dr. Phagun Shah

M.D. (Gynaec)
Consulting Obstetrician and Gynaecologist
Specialist for Male-Female Infertility

The problem of Hyperglycemia is one of the major health issues during pregnancy. One in six live births in women ,had some form of hyperglycemia & 84% of which were due to GDM.

GDM is more prevalent in urban areas as compared to the rural parts. It leads to increase in Maternal,Perinatal & Neonatal morbidity.

The focus on Prevention,Screening, Early diagnosis & Managing Hyperglycemia in pregnancy is needed globally. Pregnancy offers a window of opportunityto prevent Intergenerational transmission of Non communicable diseases.

Gestational Diabetes is defined as Carbohydrate intolerance with recognition or onset during pregnancy,irrespective of treatment with diet or insulin and whether or not the condition persists after pregnancy.

Screening :

Its very important to screen for GDM for the following reasons.

The prevalence is on the rise in our country.

Decrease the risk of mother developing diabetes after the delivery.

Helps improve the maternal &Fetal outcomes

Decreases the risk of Trans generational transmission of NCDs.

The risk of Child developing diabetes increases by eight fold ,if the mother has had untreated GDM during the pregnancy.

50% of the mothers with GDM develop Type II DM within five years of the delivery.

Complications of GDM:

Maternal	Newborn
Spontaneous abortion	IUFD
Polyhydramnios Macrosomia	Still birth
PROM / Preterm labour	Shoulder dystocia
Pre eclampsia Congenital malformations	Birth injuries
Obstructed labour / Infection	Infant respiratory issues
Uterine atony / PPH	Hypoglycemia
	Hypocalcemia

Testing: (GOI 2018 guidelines & FIGO)

Recommends **Universal** testing for all pregnant women for GDM.

We are advised routinely to conduct GDM testing thrice during pregnancy.

(*) First visit or First trimester of pregnancy.

(*) Second testing ,between24 & 28 weeks (of pregnancy) if the previous testing reported normal.

(*) Third testing at 32 weeks(if both the previous testing reported normal).

GOI guideline recommends two testing.(first visit & between 24 & 28 weeks of pregnancy).

There should be a gap of atleast four weeks between the subsequent testing.

If the testing is performed only once ,there are chances that more than one third of the women who develop GDM later on in pregnancy will be missed out.

Method of Testing : (Standard recommended method of practice in India).

Single step method / DIPSI criteria : (Oral Glucose Challenge Test).

75 gms of glucose is ingested orally after dissolving it in 300 ml of water.

Drink it in five mins.

Blood testing is done with the help of calibrated glucometer after two hours. The pregnant lady should rest during these two hours and should not eat anything during this time.

If she vomits within 30 mins of the intake , the test stands cancelled & it should be repeated on next day.

If she vomits after 30 mins of ingestion of the glucose then its not a concern and the test continues.

The advantages of single step testing is that

No need for a state of fasting. (Great help to the pregnant lady).

Can be performed anytime & no need for repeat visit.

Blood sugar values:

(*) >/= 200 mg/dl ---- Diabetes Mellitus.

(*)> 140-199 mg/dl---GDM

(*) 120-139 ---GGI.(Gestational Glucose Intolerance).

(*) <120 --- Normal.

The target values of these patients has to be 90mg/dl in fasting state & 120 mg/dl postprandial.

(*) If the pregnant lady turns out to be a case of GDM & Diabetes, according to the blood report values than further testing with Glucose loading is not needed. Their followup is continued by doing FBS & two hours post prandial blood sugar levels.

(*) The puncture for testing has to be done on the third or fourth finger. The prick has to be made with the lancet on the side of the finger tip as the tissue depth is sufficient to prevent bone injury. Avoid pricking the thumb as its pulsatile & avoid pricking the index finger as its more calloused & sensitive. Avoid the fifth finger as it does not have sufficient tissue.

(*) Wiping the finger tip before the prick is to be done with clean tap water & avoid using alcohol swab for the same as many believe that the alcohol application alters the blood sugar level results if the finger tip does not dry up totally before the prick.

(*) Validation of the glucometer should be done on regular basis.

Pisat's Visual Vasopressor Injection Needle : A new instrument for enhancing patient safety in laparoscopic myomectomy

Dr. Sanket Pisat

MS, DNB , FICOG

Consultant Gynaec Minimal Access Surgeon (Laparoscopy / Hysteroscopy)

Introduction:

It is a common practice during laparoscopic myomectomy to inject a diluted solution of a vasopressor agent into the fibroid to reduce intra operative blood loss[1]. The use of such vasoconstrictive agents has also associated with intra operative hemodynamic fluctuations[2], and very occasionally may also cause severe morbidity or mortality. These side effects could be due to its inadvertent injection into the blood vessels over the fibroid. These side effects have resulted in the drug not being commercialised in some countries across the world.

The standard laparoscopic myomectomy needle is about 33 cm in length, and is completely opaque.Predominantly, the fibroid vasculature consists of thin walled capillaries and small veins[3]. Even if the surgeon does mistakenly puncture a blood vessel, the column of blood is extremely unlikely to rise to a distance high enough to discolour the fluid in the syringe red.

By adding a small, transparent area at the proximal end of the instrument, a blood stained aspirate can be immediately seen in case the needle has punctures a vessel.[4] The needle can then be repositioned at another site over the fibroid. Thissignificantly reduces the possibility of injecting the vasopressor solution in the vascular channels over the fibroid.

The VVIN is a 33 cm long and 5mm wide hollow needle, similar to the existing needle that is used for injecting vasopressin solution during laparoscopic myomectomy. At one end of the instrument, which remains outside the abdomen, is a luer lock hub that attaches to a standard syringe. At the other end which is inserted into the abdomen, the VVIN has a disposable and detachable tip which can be screwed on to the main shaft.(Figure 1). The disposable VVIN tip has a 1 cm long transparent plastic cylindrical body and a 2.5 cm long metallic needle tip. The metallic shaft can be sterilized by autoclaving, and the transparent tip is disposable.

USING THE VVIN

The disposable tip is fixed over the shaft and the assembly is flushed with diluted vasopressin solution. After choosing a suitable site over the fibroid, as per the surgeon's preference, the VVIN is thrust into the subcapsular plane. On aspirating with a syringe,if the tip of the needle has penetrated a blood vessel, the plastic hub of the VVIN shows a blood stained aspirate (Figure 2). However, if the needle is not within a vessel lumen, the aspiration shows no blood and vasopressin can be injected safely.(Figure 3)

EFFICACY

Using a VVIN, a volume of just 0.03ml of blood is sufficient to detect avascular puncture. This is lesser than one single drop of blood (approximately 0.05 ml), and about 27 times more sensitive than a regular injection needle, which requires about 0.8ml of blood to show up as a positive aspirate in the syringe. A prospective randomised study published by Pisat S et al demonstrated significantly lesser fluctuations in pulse and blood pressure with the use of a VVIN as compared to a regular 5mm myoma infiltration needle, with no adverse cardiovascular effects.[4]

The VVIN has several other applications than laparoscopic myomectomy. It can be used for injecting vasopressin before adenomyoma removal, during laparoscopic ovarian cystectomy for endometriomas, in caesarean scar ectopic pregnancy for devascularising the uterine myometrium, and also for salpingotomy in cases of ectopic pregnancy.

The likelihood of serious life threatening side effects due to vasopressin injection during laparoscopic myomectomy is not very frequent. This may be because a diluted solution of vasopressin is used. (The author uses 20 Units of Vasopressin diluted in 200 ml of normal saline, at an effective concentration of 0.01 U/ml). However, occasional catastrophic incidents have been reported even at low concentrations. These could be minimised or nullified completely by using a VVIN. This may be a suitable alternative to stopping the usage of a relatively inexpensive drug that causes significant reduction in overall blood loss during surgery.

Using a VVIN would also provide documentary evidence that the surgeon has taken adequate care to avoid an intravascular injection, and thus may become a legal requirement in the future.

A patent application for the device has been filed both in India (Application no 201721001762) and internationally (PCT/IN/2017/050259).A worldwide analysis of patent records has confirmed that no similarinstrument for use in laparoscopic myomectomy exists till date, making this invention a worldwide first[5]. A newer disposable version of the instrument is now available, which is pre sterilised and is being marketed internationally.

References:

1. Mettler L, Schollmeyer T, Tinelli A, Malvasi A, Alkatout I. Complications of uterine fibroids and their management, surgical management of fibroids, laparoscopy and hysteroscopy versus hysterectomy, haemorrhage, adhesions, and complications. Obstetrics and gynecology international. 2012 Apr 9;2012.
2. Song T, Kim MK, Kim ML, Jung YW, Yun BS, Seong SJ. Use of vasopressin vs epinephrine to reduce haemorrhage during myomectomy: a randomized controlled trial. European Journal of Obstetrics & Gynecology and Reproductive Biology. 2015 Dec 31;195:177-81.
3. Tinelli A. Uterine Fibroid Pseudocapsule: an Update of its Importance in Fibroid Management and Female Reproduction. International journal of Gynecological, Obstetrical, and Reproductive Medicine Research Vol.1 No.1 2014. pp7-10
4. Pisat S, van Herendael B. Pisat's Visual Vasopressor Injection Needle: An Innovative Tool for Increasing Patient Safety in Laparoscopic Myomectomy. Surgical technology international. 2017 Mar 9;30.
5. Pisat SV. Pisat's Visual Vasopressor Injection Needle: A New Device for Increasing Patient Safety in Laparoscopic Myomectomy. The Journal of Obstetrics and Gynecology of India. 2017 Dec 1;67(6):451-3.

Unexplained Infertility

Dr. Azadeh Patel

M.S Obs & Gyn Infertility and IVF specialist
Consultant at ART Fertility Clinics, Ahmedabad

Unexplained infertility usually refers to couples unable to conceive, in whom all the standard investigations such as tests for ovulation, tubal patency and semen analysis are normal. Incidence of Unexplained infertility is 30–40% of infertile couples. Unexplained infertility can be very frustrating as there is no possible explanation for the cause, and therefore no effective treatment. The disturbances in hormonal endocrinology, immunology or genetic or reproductive physiology are attributed to its etiology (Pellicer et al., 1998). Unexplained infertility may arise from subtle, undetected defect in the process of reproduction or where conception is delayed by chance as the couple's fecundity may be on the lower side of the normal distribution.

Possible reasons for Unexplained infertility:

The current knowledge of the reproductive system functional assessment is limited. There are many steps involved in the process of fertilization which are not routinely evaluated or unavailable. This include tests for cervical mucus functional defects, capacitation or the ability of spermatozoa to negotiate the uterotubal junction, test for the acrosome reaction and the ability to bind to and penetrate the zona pellucida. Currently, there is no test which can provide fertilization profiles of spermatozoa. Similarly, limitations are also present in female fertility assessment such as exact quality of the oocyte, defects in the transport of the oocyte after ovulation. Moreover, Tubal patency does not guranteebidirectional tubal motility which is important for gametes (sperm and the oocyte) as well as embryo transport. Tests for the evaluation of the chance for successful implantation are also not available. Random delays in conception do not appear to account in a major way for unexplained infertility, whereas a irreversible, non random age effect is important. Therefore, the ideal definition for unexplained infertility should be a couple with a real but unobservable defect leading to infertility which may be prolonged and permanent. Only the cases with decreased ovarian reserve can have some explanation to their inability to conceive.

When to investigate:

A couple is usually referred for investigation after trying unsuccessfully to conceive for a year. The Practice Committee bulletin on unexplained infertility (ASRM, 2006) mentioned that the basic evaluation should provide evidence of ovulation, adequate sperm production and patency of Fallopian tubes. However, there is a need to evaluate ovarian reserve by Antral Follicle Count (AFC) and Anti Mullerian Hormone (AMH) and exclude cases of decreased ovarian reserve [DOR].

Prognosis :

The prognosis is worse when the duration of infertility exceeds 3 years and the female partner is > 35 years of age (Collins et al., 1995). If the duration of infertility is less than 2 years, the prognosis is relatively good even without any treatment, unless the female partner is > 35 years.

Treatment options :

A) Expectant management

- Guidelines from the Royal College of Obstetricians and Gynaecologists (RCOG, 1998) have recommended that couples should have tried expectant treatment before assisted reproductive treatment.
- The pregnancy chances depends mainly on patient's age (female), duration and type of infertility.
- Wordsworth et al., 2011; compared empirical clomiphene citrate ,natural intrauterine insemination (IUI) with expectant management and foundcomparable live-birth rates in unexplained infertility. This study compared all three methods for 6 months.
- Therefore, expectant management does play an important role in a situation where limited resources are available.

B) Ovulation inducing agents

- Ovulation induction is the basic treatment to start with these couples.
- Oral (Clomiphene Citrate and Aromatase Inhibitors) combined with hCG trigger are used as first line management to correct subtle ovulatory defects.
- CC is anti-oestrogen that occupies oestrogen receptors centally , stimulates to secrete FSH and inturn follicular response. It has anti-oestrogenic effects on endometrium (causes stromal oedema and thin endometrium) and has a negative effect on cervical mucus secretion. Dose used for CC is 50-100mg/day.
- Aromatase inhibitors blocks the conversion of testosterone to estrogen and hence stimulate the release of FSH for follicular resposne. It do not have the anti-oestrogenic effect of clomiphene citrate in the late follicular phase and they may have fewer side effects than clomiphene citrate. Dose : Letrozole is 2.5-5mg/d or 20mg single dose stat.
- Gonadotropins (Gn) are injectable hormones (FSH and hMG) used to induce direct follicular resposne. No study is found to have compared Expectant management versus Gn. Most of the studies conducted have compared the oral anti-estrogen vs Gn. Most studies have compared anti-oestrogen to Gn, and have found Gn to be superior in terms of pregnancy rates (8% CC vs 18% Gn). Though better PRs, the cost of treatment, chances of hyperresposne, possibility of OHSS, multiple pregnancy and patient's convenience should be considered and counseled before choosing the method of treatment.

C) Intra- uterine Insemination

- Questionable role of IUI over timed intercourse in the treatment of unexplained
- In unstimulated cycles (natural cycle) IUI increases the density of spermatozoa in the uterine cavity for the ovulated egg.
- In stimulated cycles pregnancy rates of IUI combined with gonadotropin stimulation (18%) have been found superior versus that with clomiphene citrate (9%). Increased pregnancy rates can be due to :
- Superovulation corrects subtle ovulatory disorders
- Superovulation increases the number of pre-ovulatory follicles
- Increase in ovarian size may bring the ovary in close proximity to the fimbria
- Superovulation may affect tubal vascularity to enhance ovum pick up mechanisms
- Sperm wash techniques enhance fertilising capacity of sperms
- IUI increases the number of sperms reaching the ampullo-isthmic junction
- A single well timed IUI is recommended versus double IUI in couples with unexplained infertility.
- Nice guidelines (2004) has recommended IUI as a treatment option in unexplained infertility for six cycles..

D) In Vitro Fertilization (IVF)

- IVF is an accepted method of treatment for unexplained infertility.
- It is expensive and minimally invasive, but the most effective method.A Cochrane review (Pandian et al., 2005) on the role of IVF in unexplained infertility showed higher pregnancy rates than expectant management (OR 3.24, 95% CI 1.07–9.80).
- The American Society for Reproductive Medicine/Society for Assisted Reproductive Technology Registry (ASRM/SART) reported a live-birth rate among women with unexplained infertility of 30.4% (Practice Committee of ASRM, 2006).
- IVF in unexplained infertility helps in problems with ovarian dysfunction, cervical factors, sperm and egg interaction and sperm and egg transport.
- IVF has a high success rate (50-60%) along with high multiple-pregnancy rates (25%), however, this can be controlled by reducing numbers of embryos transferred, preferably single blastocyst transfer.
- Live-birth rate/woman with a single cycle of IVF was also significantly higher than with expectant management (OR 22.0, 95%CI 2.56–189.38;Hughes et al., 2004).
- The most serious and potential risk in the IVF procedure is ovarian hyperstimulation syndrome (OHSS), which can be minimized by proper selection of patients, Gn dose and segmenting an IVF cycle. Segmentation of IVF cycle using antagonist protocol, gonadotrophin-releasing hormone agonist as a trigger and cryopreservation of all embryo and transferring it in subsequent cycle. (Papanikolaou et al., 2011) is most promising.

References:

1. ASRM, 2006. Effectiveness and treatment of unexplained infertility the practice committee of the American Society for Reproductive Medicine. Fertil. Steril. 86.
2. American Fertility Society, 1992. Investigation of the Infertile Couple. American Society for Reproductive Medicine, Birmingham.
3. Collins, J.A., Crosignani, P.G., 1992. Unexplained infertility: a review of diagnosis, prognosis, treatment efficacy and management. Int. J. Obstet. Gynaecol. 39 (4), 267–275.
4. Hughes, E., Brown, J., Collins, J.J., Vanderkerchove, P., 2010. Clomiphene citrate for unexplained subfertility in women. Cochrane Database Syst. Rev. Art. No.: CD000057. doi:10.1002/14651858.CD000057
5. Pandian, Z., Bhattacharya, S., Vale, L., Templeton, A., 2005. In vitro fertilization for unexplained sub fertility. Cochrane Database Syst. Rev. Art. No.: CD003357. doi:10.1002/14651858.CD003357.
6. Papanikolaou, E.G., Humaidan, P., Polyzos, N., Kalantaridou, S., Kol, S., Benadiva, C., Tournaye, H., Tarfatzis, B., 2011. New algorithm for OHSS prevention. Reprod. Biol. Endocrinol. 3 (9), 147.
7. Pellicer, A., Albert, C., Mercader, A., Bonilla-Musoles, F., Remohi, J., Simon, C., 1998. The follicular and endocrine environment in women with endometriosis; local and systematic cytokine production. Fertil. Steril. 70, 425–431.
8. Royal College of Obstetricians and Gynaecologists Infertility Guideline Group, 1998. The Management of Infertility in Secondary Care. RCOG, London

COVID-19 A NATURAL SPREAD OR A LABORATORY LEAK....???

Dr. Hemant Bhatt

Supporters of the natural origin hypothesis say Covid-19 emerged in bats and then jumped to humans, most likely through another animal, or "intermediary host
But the revelations are very different & eye opening about origin of SARS COVID 19:
The WHO's own director-general, Dr Tedros Adhanom Ghebreyesus, has called for a new investigation, saying: "All hypotheses remain open and require further study."
A dis-used copper mine in the outskirts of a village deep in the mountains of southwest China has become the centre of attention for escalating calls for a more thorough probe into whether the COVID-19 pandemic could have stemmed from a Chinese laboratory.
The Wall Street Journal reported that the area is the subterranean home of the close known virus to the one that causes COVID-19.
In April 2012, six miners fell sick with a mysterious illness after entering the mine to clear bat guano, out of which three died.
Following this, scientists from the Wuhan Institute of Virology (WIV) were called in to investigate and after taking samples from bats in the mine, they identified several types of new coronaviruses.
Such circumstances lead to an idea that the SARS-COV-2 virus might have been leaked from a lab in Wuhan, where the first case of COVID-19 was identified in December 2019.
The lab researchers have yet to provide full and prompt answers and there have been some discrepancies in some of the information they had released, leading to demands for a deeper investigation into the Wuhan institute, reports The Wall Street Journal.
Even some senior public health officials, who considered the probability of a lab leak improbable, now back the calls for a fuller probe, saying that the World Health Organization (WHO)-led team had insufficient access in Wuhan earlier this year.
A growing number of people, including the chief of the WHO and a prominent researcher who has worked with the WIV, say that it needs to provide more information about its work to categorically rule out a lab spill.
Three researchers from the WIV had sought hospital care after they fell ill in November 2019, a month before Beijing reported the first patient with COVID-like symptoms
The report provides fresh details on the number of researchers affected, the timing of their illnesses, and their hospital visits.
Recently, Anthony Fauci, a top adviser to US President Joe Biden on the coronavirus pandemic said he's "not convinced" the deadly virus developed naturally and has called for further investigations into where it emerged.
Fauci was asked during a Poynter event, "United Facts of America: A Festival of Fact-Checking," earlier this month about whether he was confident that COVID-19 developed naturally, Fox News reported.
"No actually. I am not convinced about that. I think we should continue to investigate what went on in China until we continue to find out to the best of our ability what happened," Fauci, the director of the National Institute of Allergies and Infectious Diseases, said.
The controversy about COVID-19 origins has resurfaced after the Weekend Australian newspaper revealed that **Chinese scientists were thinking about bioweapons, visualising a World War-III scenario.**
Last month, the US Secretary of State Antony Blinken launched a scathing attack against China for a lack of transparency during "the early stages" of the coronavirus pandemic and called for a more thorough investigation into the origins of COVID-19.
His remarks came following the publishing of a joint inquiry by the World Health Organization and China in March. The inquiry did not conclusively establish how or when the virus began spreading and did little to address Western concerns that the Chinese Communist Party bent the investigation to its advantage.
China refused to give raw data on early COVID-19 cases to the WHO-led team probing the origins of the pandemic. Beijing has been accused of delaying access to international investigators for months after the

initial outbreak, virtually guaranteeing that the lab had been deep-cleaned before any forensic analysis could be done. (ANI)

Dr Fauci now says he's "not convinced" the virus originated naturally. That's a shift from a year ago, when he thought it most likely Covid had spread from animals to humans.

Given the massive human toll of the pandemic - which has now claimed the lives of 3.8 million people worldwide it is important to know the origin of this virus.

Most scientists think understanding how and where the virus originated is crucial to prevent it happening again.

Prof Shi Zhengli - often referred to as "China's Batwoman" - a researcher at the Wuhan Institute, published a report in the month of MAY 2021 revealing that her team had identified eight coronavirus strains found on bats in the mine in China in 2015.

Three researchers from the WIV had sought hospital care after they fell ill in November 2019, a month before Beijing reported the first patient in the world with COVID-like symptoms, the Wall Street Journal reported earlier.

For instance, aspects of the virus that have made some suspect it was bioengineered could also be evidence that the virus evolved naturally. A lot of attention has been drawn **to an unusual feature on its spike protein called a furin cleavage site,** with which the virus can better infect a human cell. It's one of several odd features of SARS-CoV-2 that are weird enough that even virologists who greatly doubt lab involvement told they were shocked to see it. In fact, even beyond the furin cleavage site, SARS-CoV-2 was a virus that scientists had never seen before. Evolution can be a random accumulation of weird, novel features.

But even if we put aside directed engineering, regular lab work at the Wuhan labs has raised concerns.

In 2016 the Wuhan institute reported experimenting on a live bat coronavirus that could infect human cells in a BSL-2 lab — a biosafety level that has been compared with that of a dentist's office. Protective gear other than gloves and lab coats is usually optional at this level, and there's often no airflow control sealing ventilation between the work area and the rest of the building. Michael Lin, an associate professor of neurobiology and bioengineering at Stanford, told it was "an actual scandal, recorded in print," that a SARS-like virus capable of replicating in human cells was worked on under such low safety conditions.

Just trying to culture bat viruses in the lab can create risks that the scientists may not even be aware of. While trying and failing to cultivate one strain, they might inadvertently culture another one they don't even know about. It's even possible, Dr. Lin told , that viruses can coexist in a single sample and quietly recombine, giving rise to something novel but undetected. Under BSL-2 conditions or even sloppy BSL-3 conditions, researchers could get exposed to a pathogen they didn't know existed.

Several scientists who signed The Lancet letter denouncing the consideration of anything but natural origins in FEB 2020 have since said they are more open to lab involvement.

One, Bernard Roizman, an emeritus virologist at the University of Chicago with four honorary professorships from Chinese universities, said he was leaning toward believing there was a lab accident.

"I'm convinced that what happened is that the virus was brought to a lab, they started to work with it," he said, "and some sloppy individual brought it out." He added, "They can't admit they did something so stupid."

Charles Calisher of Colorado State University, another signatory, recently told ABC News that "there is too much coincidence" to ignore the lab-leak theory and he now believes "it is more likely that it came out of that lab."

Peter Palese, the virologist who wrote about the 1977 flu pandemic, said that "a lot of disturbing information has surfaced since The Lancet letter I signed" and that he wants an investigation to come up with answers.

Other scientists have also said they have changed their minds.

One, James Le Duc, the recently retired director of the Galveston National Laboratory, a major lab that studies the coronavirus and that trained many of the Wuhan biosafety specialists, said in May that it was "important to look closely at the laboratory conditions and explore what was being done where and have a serious investigation."

Ian Lipkin, the director of the Center for Infection and Immunity at Columbia University and a co-author of an influential article in Nature Medicine that argued in favor of a natural origin in March 2020, is also now more skeptical. "People should not be looking at bat viruses in BSL-2 labs," he told the science reporter Donald G.

McNeil Jr, last month. “My view has changed

In an article in Nature Medicine in 2015, researchers from two of the major coronavirus laboratories in the world — Dr. Shi; Ralph Baric, a professor at the University of North Carolina at Chapel Hill; and others — wrote that they had bioengineered a coronavirus. The work was carried out in Dr. Baric’s laboratory at U.N.C. They took a spike protein, the “key” that coronaviruses use to unlock and infect cells, from a horseshoe bat virus and combined it with a human SARS virus adapted for mice. They reported that this “chimeric” virus could infect human cells, suggesting some bat viruses may be “capable of infecting humans without mutation or adaptation.” This was the second time since Dr. Shi’s 2013 experiments that a SARS-like bat coronavirus showed the ability in the lab to directly infect human airway cells.

In defense of the 2015 coronavirus experiment by Dr. Shi and her colleagues, Peter Daszak, whose organization, EcoHealth Alliance, has worked closely with her and has been granted tens of millions of dollars in the last decade from the U.S. government, said the findings would allow scientists to focus on the greatest risk because it would “move this virus from a candidate emerging pathogen to a clear and present danger.”

Others were more worried. “If the virus escaped, nobody could predict the trajectory,” said Simon Wain-Hobson, a virologist at the Pasteur Institute in Paris.

Recent history provided plenty of reason for such concern.

Shortly after Wuhan was locked down in January 2020, it became apparent that SARS-CoV-2 was related to a virus that scientists had been aware of for years.

On Feb. 3, 2020, Dr. Shi and co-authors announced in Nature that they had found a virus in their database, RaTG13, whose genome sequence was 96.2 percent identical to SARS-CoV-2 and was previously detected in horseshoe bats of Yunnan.

Suspicious internet sleuths combed through genomic databases and found that RaTG13 was an exact match for a bat coronavirus called 4991 retrieved from a cave implicated in an unexplained outbreak of pneumonia in 2012 among miners who collected bat guano from a mine in Yunnan. Three of the six miners died which I have earlier referred.

In May 2020, a former science teacher from India, with the Twitter pseudonym TheSeeker268, found a 2013 master’s thesis, as well as a 2016 Ph.D. thesis, supervised by George Fu Gao, the current director of the Chinese Center for Disease Control and Prevention. The master’s thesis hypothesized that the miners’ illness was caused by direct transmission of a SARS-like coronavirus from a horseshoe bat. The Ph.D. thesis was more cautious but still called the outbreak “notable.” It also revealed that a team from the Wuhan Institute of Virology had collected bat samples from the cave. The dissertation noted that all four of the miners who were tested for SARS antibodies had them in their blood a few weeks after they became ill.

It is interesting to note that National Institute of Health,USA headed by Dr Anthony fauci for four decades gave money to 'eco health Alliance' situated at Newyork which is the organisation headed by Dr.Peter Daszak and this 'Ecohealth Alliance' gave money to 'Wuhan Institute of virology' for research on viruses.

In 2014, 3.4 million US dollars were given to 'eco healthscience' which gave money to 30 Laboratories worldwide to study viruses. Wuhan laboratory got 5 lakh 98 thousand US dollars from 2014 to 2019 from 'ecohealth Alliance' for its research purposes. These viral Laboratories involved in research of Reverse engineering of viruses which are infecting human beings and this study on these viruses is known as 'gain-of-function'

In December 2019 same Dr.Peter daszak gave interview perhaps with Dr.Shi zing Li of Wuhan viral lab. & boasted that they have created 100 novel corona viruses in laboratories.

It is to be noted that in Netherlands in 2015 they have created a mice virus with spikes of viruses found in cat & when both mice & cat were infected with that researched & lab. made virus, it only killed cats & not mice...!!

In nutshell, all the probes & findings by scientists in recent months suggest murkier role of China and it is not a surprise that former president of USA Donald Trump demanded a 10 trillion dollar compensation from China for the death & destruction caused by corona virus to the world.

Coming days are are more interesting & will throw more light on the the real cause of the origin of coronavirus and its spread....

Dr. Hemant Bhatt

Vani

A step towards happiness

Vani IVF Team Shares shoulders to Fulfill your Dream of Parenthood

Viren Patel

Vani Patel

Vishal Pandhade

Dr. Kamini Patel

OUR SERVICES

IVF Services

- TESA, PESA For Azoospermic Patients
- Special Team working for Reduced Ovarian Reserve
- Innovation for Implantation Failure
- IVF Specialist and well Trained Embryologist working with Aim of Using "Self Gametes"

Stem Cell Therapy

- Thin Endometrium
- Recurrent Implantation Failure
- Azoospermia

Surrogacy

Genetic Counselling by Geneticist

High End Laparoscopic Surgeries

High Risk Pregnancy

Ovarian Tissue Cryopreservation

Oocyte preservation

CIMS®

CARE INSTITUTE OF MEDICAL SCIENCES

Earning Trust with World-Class Practices

Now Vani Team welcomes you at CIMS On all Days.

Call Today and Start your Journey Towards Parenthood

+91 9374747479 || 079 22721572

Like us :

25 - Asmita Society Nr. Kashivishvanath Temple, Maninagar(E), Ahmedabad, 380008