



# Small Case Series of Laproscopic Cervical Cerclage In Patients of Cervical Incompetence



**Dr. Parth Bavishi**

Dr. Himanshu Bavishi, Dr. Falguni Bavishi, Dr. Janki Bavishi

## ABSTRACT:

Cervical incompetence may be due to obstetric, gynecological or congenital causes. The laparoscopic cerclage is highly recommended for previous failed vaginal cerclage & is superior to laparotomy approach in terms of low morbidity, faster recovery.

In this small case series of 3 patients who underwent preconceptional laparoscopic cerclage, we tried to evaluate outcome of preconceptional laparoscopic cerclage in patients of cervical incompetence.

All 3 patients had h/o at least two late second trimester abortion or early 3<sup>rd</sup> trimester spontaneous preterm birth and at least one failed vaginal cerclage. Preconceptional laparoscopic cerclage was done with mersilene tape.

Main outcome was neonatal survival & prolongation of gestation and any Intra or postoperative complications.

In our small case series of Laparoscopic cervical cerclage, there were no Intraoperative or postoperative complications. There were no cases of failure. However only 1 patient delivered healthy child at >36 weeks. One patient had ongoing pregnancy but required termination due to congenital anomaly required hysterotomy for lethal congenital anomaly, and one is done recently, yet to try for pregnancy.

## INTRODUCTION:

Cervical incompetence is known to occur in 1% of all pregnancies, it recurs in 30% cases. It typically presents in second trimester of pregnancy as pelvic pressure and painless cervical dilatation in the absence of uterine activity. Cervical

incompetence is a complex phenomenon with multiple underlying etiologies. It can be due to previous obstetric or gynecological trauma, congenital weakness or shortness. Cerclage can be done vaginally, which is conventional surgery, or abdominally, which can be either laparoscopic or laparotomy approach.

Transabdominal approach was first described by Benson & Durfee in 1965; indication was extended by Novy in 1982, for failed vaginal cerclage in previous pregnancy.

## CASE SERIES:

Aim of this case series is to evaluate obstetric outcome of preconceptional laparoscopic cervical encerclage in patients of cervical incompetence.

### Operative procedure:

Primary 10mm port made supraumbilically. 3 other 5mm ports made under vision, one at palmer's point( 2 finger breath below left costal margin in MCL)and one each between ant.sup.ilic spine and inf.epigastric vessels on both sides. UV fold opened, bladder pushed down and isthmus and cervix exposed. Uterine vessels skeletonised. Round bodied ski needle of mersilene tape passed posterior to anterior, medial to uterine vessels through the substance of uterus at the level of isthmus bilaterally. 6 knots of mersilene tape tied anteriorly and were fixed using ethibond(non absorbable suture) 2-0. UV fold was closed.

### Case 1:

31 yr lady, married since 14yrs, presented with primary infertility. She was obese with typical signs and symptoms of polycystic

ovarian syndrome. She conceived 4 times, with IVF-ICSI treatment. In her first pregnancy, she had single gestation; Patient had painless cervical dilatation at 16wks followed by spontaneous abortion. Second time she conceived, it was twin gestation, resulted in missed abortion at 8wks. In her third pregnancy, MacDonald's vaginal cerclage was done at 13wks i/v/o previous h/o 2<sup>nd</sup> trimester miscarriage & transvaginal scan showing short cervix. She was advised rest, tocolytics, but in spite of all the precautions, she aborted at 18-19wks. Fourth pregnancy was a blighted ovum at 7wks.

Pre-pregnancy laparoscopic cerclage was planned for her i/v/o failed vaginal cerclage with cervical incompetence & BOH.

She conceived in next IVF-ICSI cycle again. In this pregnancy her antenatal period was uneventful, successfully completed 36wks of gestation. She delivered by elective cesarean section, baby of birth wt. 2.94kg without any intraoperative or postoperative complications. The tape was left in situ, precaution was taken to mark lower segment horizontal incision slightly above the usual site, so that the tape was not disturbed, as the lady was interested in future fertility.

### Case 2:

31 year old lady with h/o 3 pregnancy loss.

1<sup>st</sup> pregnancy was conceived with ovulation induction. Patient had full term vaginal delivery of stillborn child. Exact cause of IUFD could not be determined.

2<sup>nd</sup> pregnancy was conceived with ovulation induction and 3<sup>rd</sup> with IUI. Both 2<sup>nd</sup> and 3<sup>rd</sup> pregnancy patient had preterm vaginal delivery at 6 months amenorrhea (26-28wks). Patient had painless cervical



dilatation followed by leaking in both pregnancies. Patient had h/o vaginal encrclage in both pregnancies. Neonate expired after 17 days in 2<sup>nd</sup> pregnancy and immediately after birth in 3<sup>rd</sup> pregnancy.

Patient's blood investigations for repeated pregnancy loss including screening for APLA syndrome and karyotype were normal.

Laparoscopic cervical encrclage was done. There was no Intraoperative or postoperative complications.

Patient conceived with IUI in 4<sup>th</sup> pregnancy. She was diagnosed with lethal congenital anomaly at 20 weeks. Patient had termination at other hospital by elective hysterotomy.

### Case 3:

40 years old lady with history of infertility due to male factor (severe oligoasthenospermia).

Patient had h/o 3 pregnancy loss.

1<sup>st</sup> pregnancy was twin conception conceived with IVF. Patient had painless cervical dilatation followed by leaking at 25 weeks. 2 female children were delivered by Caesarean section; both expired after 2 weeks of delivery. Patient had h/o vaginal encrclage in this pregnancy.

2<sup>nd</sup> pregnancy was single conception conceived with IVF which resulted in missed abortion at 7 weeks.

3<sup>rd</sup> pregnancy was twin conception conceived with IVF. Patient had vaginal encrclage at 13 weeks. Patient had pain and leaking at 16-17 weeks and twins spontaneously aborted vaginally.

Patients blood work including karyotype was normal except borderline elevated B2 Glycoprotein IgM, for which hematologist was consulted. Patient was advised no treatment.

Laparoscopic cervical encrclage was done recently.

Patient is yet to conceive as the procedure is done recently. However in case of previous CS the operative procedure and the

postoperative period were uneventful.

In our small case series of Laparoscopic cervical encrclage, there were no Intraoperative or postoperative complications. There were no cases of failure. However only 1 patient delivered healthy child at >36 weeks. One patient had ongoing pregnancy but required termination due to lethal congenital anomaly, and one is done recently, yet to try for pregnancy.

### DISCUSSION:

With proper selection of patients and good operative skills, preconceptional cerclage proved safe and effective, resulting in favorable obstetric outcome in this patient with cervical incompetence and bad obstetric history. Laparoscopic approach favors comparably with traditional laparotomy approach & should be integrated in clinical practice whenever possible<sup>(1)</sup>. Preconceptional cerclage is more practical.

Advantages of this procedure are less morbidity, faster recovery, being anatomically more accurate, no foreign body in vagina which can act as nidus for infection, reduced incidence of premature rupture of membranes, being possible in patients with cervico-vaginal fistulas, less incidence of slippage and adhesions. Firm nature of non-pregnant cervix helps surgeon to avoid injury to adjacent vessels.

The disadvantages being, laparoscopy is a major procedure as compared to vaginal cerclage, also one needs a caesarean section after cerclage. Failure of laparoscopic cerclage & chorioamnionitis occurred more often when placed during pregnancy. But timing of cerclage does not influence the gestational age at delivery.

Most comprehensive systematic review of literature by Burger & coworkers<sup>(1)</sup> compared 135 laparoscopy procedures with 1116 transabdominal cerclage procedures. They concluded that Interval laparoscopy approach better than one performed during

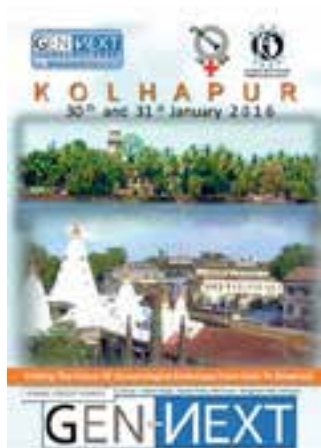
pregnancy, Alex ades<sup>(2)</sup> in one of the most recent studies (April 15) found, the perinatal survival was 95.8% with mean gestational age at delivery of 35.8wks, 83% women delivered >34 wks gestation. He has performed 150 laparoscopic cerclage procedures, 12 done during pregnancy, 138 before pregnancy, most pregnancies were uneventful. In study by Lu lu, Shu-gin chen<sup>(3)</sup>, they compared laparoscopic vs vaginal cerclage & observed that, Fetal salvage rate was 92.3% & no adverse effects were encountered. Mean gestational age in laparoscopy group was 36.4 wks & it was 17.4 wks longer than their previous pregnancy age, significantly higher than obtained by vaginal cerclage. Reported complications include uterine vessel injury (5%); & small bowel injury (9%) in various studies.<sup>(4)</sup> In addition to intraoperative complications, women with transabdominal encrclage may require cesarean delivery and may potentially require hysterotomy if miscarriage or fetal demise occurs.<sup>(5)</sup>

Vaginal cerclage is being done for those at risk of preterm labour or in those with short cervix on USG, but there are various theories and supportive studies, indicating its role in only selective group of patients and not in all. The laparoscopic preconceptional cerclage holds promise for patients of cervical incompetence, esp. when vaginal cerclage fails to prolong pregnancy. Skilled surgeon and right selection of patients is the key to this novel procedure. However NICE guidelines (2007) "The specialist advises considered this procedure to be novel and expressed uncertainty about its efficacy."<sup>(4)</sup>

We need controlled trials for this surgery to support its role in large no. of patients before coming to definitive conclusion, but it is surely a promising step in this era of keyhole surgeries.

### KEYWORDS:

Cervical, abortion, incompetence, laparoscopic ,cerclage



## **GEN-NEXT CONCLAVE 2016 Live Operative Endoscopy Workshop & Conference**

**January 30-31, 2016  
Kolhapur**

**a report**

IAGE in association with Kolhapur Obstetric and Gynecological Society (KOGS) organised a mega event "GEN NEXT CONCLAVE 2016" under the leadership of Dr Vidya Thakar, President KOGS and Dr Anagha Kulkarni., Secretary General KOGS. Two day event was held at Kolhapur on January 30-31, 2016 at Hotel Sayaji. On January 30, 2016 a live operative endoscopy workshop was conducted at Apple Saraswati Hospital whereby eminent faculties such as Dr. Rajendra Sankpal, Dr Hafeez Rehman, Dr Sandesh Kade, Dr Nozer Sheriar, demonstrated and taught more than 16 live surgeries including variety of TLHs, Myomectomy, neovagina creation, laparoscopic abdominal cervical encircage, conservative surgery for prolapse uterus, TCRE, TOT for stress Urinary Incontinence, etc. On evening of January 30 conference was inaugurated by Chief guest Hon. MLA Kolhapur Satej Patil, Dr. Rajendra Sankpal, On January 31. Scientific committee chaired by Dr Vidya Thakar put all their efforts to cover the wide variety of topics. Total 256 delegates attended the conference and enlightened themselves from the galaxy of the speakers who presented their subject precisely.

"Only Hysterectomy": Live Operative Workshop: IAGE & AFG Event, February 14, 2016, Mumbai

On February 14, IAGE organised a live operative workshop on "Only Hysterectomy" in association with Association of Fellow Gynecologists. Workshop was conducted at Nanavati Super speciality hospital, Mumbai. Dr. Rajendra Sankpal President IAGE, Dr Mohan Gadam, President AFG, Dr Rajendra Saraogi, Dr Rishma Pai, Dr Manohar Motwani were part of the managing committee of this workshop. Chief guest Dr C.N. Purandare, President FIGO inaugurated the workshop. Various technics of hysterectomy including Laparoscopic hysterectomy, minimally invasive technic mini laparotomy hysterectomy, NDVH, Vaginal hysterectomy for prolapsed uterus, sacrospinous fixation of vaginal vault were demonstrated by eminent faculties such as Dr Shirish Sheth, Dr Rajendra Saraogi, Dr Prashant Mangeshikar, Dr. Rajendra Sankpal, Dr Mohan Gadam & Dr Rakesh Sinha. Delegates were satisfied with lots of practical take home messages and tips to incorporate into their day to day practice.





*Pioneer and Center for*  
**Basic and Advanced Laparoscopic Training Centre  
& FOGSI-ICOG recognised Six months  
Fellowship in Gynaecological Endoscopy**

**Gynecological Laparoscopic Surgeon at Jyoti Hospital, BF Institute,  
Apollo Hospital, L.G. Hospital and Multispecialty Corporate Hospitals of Ahmadabad**



Believe in showing live surgery during Laparoscopic surgery and for Medical transparency giving video to the patient for understanding/conveying prognosis in infertility patient.

Advising **second opinion in difficult and complicated cases** for understanding latest, honest and evidenced based practice decision as per an International Recommendations.

## **JYOTI HOSPITAL AND MINIMUM INVASIVE SURGERY CENTER**

First Floor, Ocean Park, Satellite Road, Ahmedabad 380015

Phone : +91 79 26731759 Fax : +91 79 26766491

Email: [pragnesh@laparoscopyexpert.com](mailto:pragnesh@laparoscopyexpert.com) Website : [www.laparoscopyexpert.com](http://www.laparoscopyexpert.com)



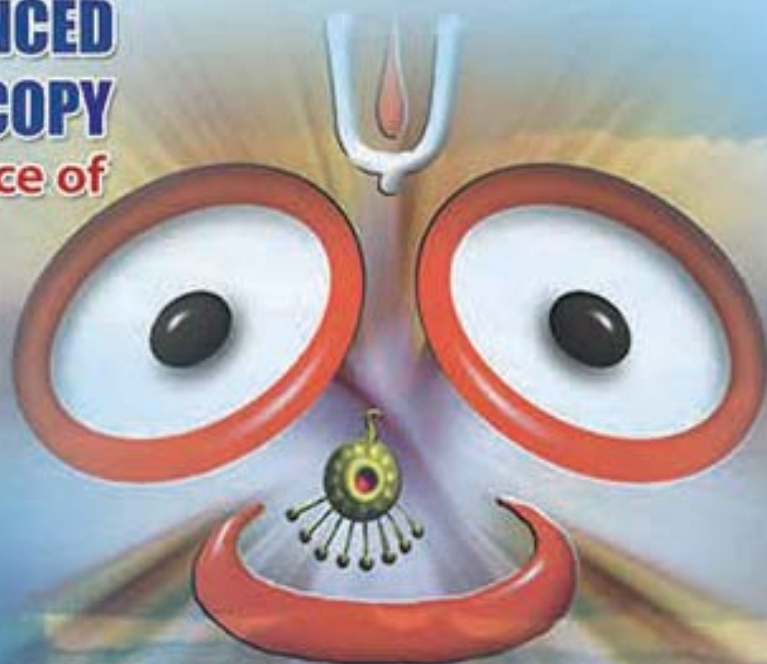
**Dr. Pragnesh Shah**  
98240 50916



**Dr. Parulben Shah**  
98244 50916



**BAGE - 2016**  
**BASIC TO ADVANCED**  
**GYNAEC ENDOSCOPY**  
Annual Conference of  
IAGE - 2016



**Venue:**  
**Hotel The New Marrion, Bhubaneswar,**  
**9th, 10th & 11th September 2016**



**Hosted by :**  
**Association of Obstetricians &**  
**Gynaecologists of Orissa, Cuttack**  
**Under the aegis of**  
**FOGSI & IAGE**





*Perfect Blend of Experience,  
Expertise and Recent Advances  
in the field*

### **70 years in women's healthcare**

Team of Nine Experienced consultants  
Three dedicated generations  
Hospitals at three different locations in Ahmedabad



### **Services offered**

- \* Complete pregnancy care with computerized fetal monitoring
- \* Ultrasound with color doppler and 3D
- \* Fertility care
- \* Center for advanced Gynaec Open and Minimal Invasive Surgery (equipped with latest KARL STORZ IMAGE 1 SPIESTM HD & GEN 11 Ethicon)
- \* Menopause and Urogynaec Clinic



### **Hospitals :**

Kalpana Munshi Nursing Home, 4 SBK Society, Paldi Ahm 7. Ph.: +91 99250 76000.  
Praful Munshi Nursing Home, 51, Pritamnagar Society, Ellis Bridge Ahm 6. Ph.: 079 26463434  
Concept Gynaec Endoscopy & Fertility Clinic, 301/A, Himalaya Emerald, Shivranjani, Ahd 15. Ph.: +91 98980 21000

[conceptclinic.in](http://conceptclinic.in) | [munshihospital.com](http://munshihospital.com)



## Endoscopy Training Programme (FOGSI Approved)

**Dr. Tejas Dave** M. D. (Gyn)  
Endoscopic Surgeon

**Dr. Jigna Dave** M. D. (Gyn)  
Infertility & IVF Specialist

**All trainees given hands  
on training in TLH**

### **IVF**

### **INFERTILITY**

### **ENDOSCOPY**

### **PREGNANCY CARE**

#### **Infertility/IVF**

- IUI
- IVF, ICSI
- Sperm, Ovum & Embryo Donation
- Surrogacy
- Vitrification, Cryopreservation
- Frozen Embryo Transfer

#### **Endoscopy**

- TLH
- Myomectomy
- Endometriosis Surgeries
- Fertility Promoting Surgeries
- Cancer Surgeries
- Hysteroscopic Surgeries, etc...

FOGSI Approved Endoscopic Surgery Training Center for Gynecologists

**Address :** 33, Prankunj Society, Kankaria, Ahmedabad-380 028, Gujarat, (INDIA)

 +91 - 79 - 2543 2776, 2543 4776, 2543 5776 •  doctor@poojahospital.in •  www.poojahospital.in

# WORLD CLASS IVF TREATMENT AT WINGS TO MAKE SURE YOU'RE IN SAFE HANDS



## LATEST & INTERNATIONAL TRANSFER & FREEZING TECHNIQUES

WINGS hospital, a renowned IVF hospital in India, has been instrumental in bringing the joy of parenthood to more than 4000 couples till now.

Our state-of-the-art hospital in Ahmedabad, Gujarat, India, provides latest and advanced fertility check, care and treatment, IVF, endoscopy, surrogacy and all kinds of medical assistance needed to make sure you are in safe hands.

### Expert IVF Services

- IVF
- IUI, ICSI, PICSI, IMSI
- Genetic Diagnosis & Screening
- ERA, Egg & Sperm Donation
- Surrogacy

MORE THAN  
**4000**  
LIVE BIRTHS  
THROUGH IVF

### WINGS Edge

- 0.3 Micron Clean Air Large Modular IVF Lab with epoxy flooring
- IVF treatment - **100% commitment by scientific means**
- Centre specialised to tackle recurrent IVF failures
- PGD
- PGS
- Endometrial receptive assay
- Laser assisted hatching
- High magnification sperm selection
- Only blastocyst transfer & its freezing
- Adherence to international standards in IVF
- Round the clock doctors on duty
- Highly trained para-medical staff



**Dr. Jayesh Amin** MD Gynec (Infertility & IVF Specialist)

2, Sumangalam Society, Opp. Drive-in Cinema, Near HDFC Bank, Thaltej, Ahmedabad, Gujarat, India.

Ph: +91-79-300773 80/81/82 | Mobile no.: +91 78787 77222

Email: [info@wingshospitals.com](mailto:info@wingshospitals.com) | Website: [www.wingshospitals.com](http://www.wingshospitals.com), [www.surrogacygujarat.com](http://www.surrogacygujarat.com)



# ADVANCED ENDOSCOPIC TECHNIQUES AT WINGS TO MAKE SURE YOU'RE IN SAFE HANDS



COMBINED EXPERIENCE OF MORE THAN 10,000 SUCCESSFUL  
GYNEC ENDOSCOPIC SURGERIES

Your search for advanced endoscopic treatment ends here. WINGS, a state-of-the-art IVF hospital in Ahmedabad, Gujarat, provides latest and advanced endoscopic techniques to manage infertility to the core. With expert care, treatment & medical assistance we make sure you are in safe hands.

MORE THAN  
**4000**  
LIVE BIRTHS  
THROUGH IVF

## Endoscopic Services

- Difficult TLH
- Grade III-IV Endometriosis
- Prolapse Surgery
- Large Fibroids
- Hysteroscopic Surgery
- Tuboplasty

## Technological Advancements for Latest Endoscopic Treatments

- State-of-the-art advanced Endoscopy
- India's 1st installation of HD camera for Endoscopy by Richard Wolf, Germany
- Adherence to international standards in IVF & Endoscopy departments
- Endoscopic solution for all kinds of advanced gynec surgeries
- Fertility promoting endoscopic surgeries



**Dr. Jayesh Amin MD Gynec (Infertility & IVF Specialist) | Dr. Devang Kanuga MD, DGO (Endoscopic Surgeon)**

2, Sumangalam Society, Opp. Drive-In Cinema, Near HDFC Bank, Thaltej, Ahmedabad, Gujarat, India.

Ph: +91-79-300773 80/81/82 | Mobile no.: +91 78787 77222

Email: [info@wingshospitals.com](mailto:info@wingshospitals.com) | Website: [www.wingshospitals.com](http://www.wingshospitals.com), [www.surrogacygujarat.com](http://www.surrogacygujarat.com)

WITH 10,000  
IVF PREGNANCIES,  
NOVA IVI FERTILITY  
ESTABLISHES ITS  
LEADERSHIP IN THE FIELD.



10 REASONS WHY NOVA IVI FERTILITY HAS CROSSED 10,000 IVF PREGNANCIES

- Partnership with IVI, Spain
- World class technology and advanced techniques
- Stringent quality assurance & quality control
- Evidence based practice
- Experienced and expert team of clinicians & embryologists
- Transparent and ethical practice
- Excellence in patient care
- Exclusive focus on fertility
- Comprehensive range of services under one roof
- Proven success record

LIST OF SERVICES

- **Basic Fertility Treatments:** Complete Infertility Evaluation, Laparoscopy, Hysteroscopy, IUI, IVF, ICSI, Vitricification
- **Advanced Treatments:** IMSI, Embyoscope, Blastocyst Culture, Laser Assisted Hatching
- **Andrology Treatments:** Semen Analysis, Sperm DNA Fragmentation, MACS, TESA, PESA, Micro-TESE
- **Genetic Diagnostics:** PGD, PGS, ERA
- **Donation Programme:** Sperm/Egg/Embryo Donation Services

Ahmedabad | Bengaluru | Chennai | New Delhi  
Hyderabad | Jalandhar | Kolkata | Mumbai | Surat | Pune  
TOLL-FREE 1800 102 9413  
[www.novaivifertility.com](http://www.novaivifertility.com)



**NOVA IVI**  
FERTILITY

Science. Pregnancy. Happiness



WITH 10,000 IVF PREGNANCIES, NOVA IVI FERTILITY  
ESTABLISHES ITS LEADERSHIP IN THE FIELD.

10 REASONS WHY NOVA IVI FERTILITY HAS CROSSED 10,000 IVF PREGNANCIES

- Partnership with IVI, Spain
- World class technology and advanced techniques
- Stringent quality assurance & quality control
- Evidence based practice
- Experienced and expert team of clinicians & embryologists
- Transparent and ethical practice
- Excellence in patient care
- Exclusive focus on fertility
- Comprehensive range of services under one roof
- Proven success record

CONSULTANTS

- Dr. Manish Banker • Dr. Sandeep Shah • Dr. Sujal Munshi • Dr. Jigish Trivedi

13 CENTRES. 10 CITIES.

108, Swastik Society, Navrangpura, Ahmedabad,  
Gujarat - 380 009. T: +91 79 2642 2626  
[www.novaivifertility.com](http://www.novaivifertility.com)





# ALL INDIA CRITICAL CARE HOSPITAL RANKING SURVEY 2016

The objective of this research was to arrive at a list of Top Multi Speciality/ Super Speciality / Single Speciality Hospitals

RATED

## BAVISHI FERTILITY INSTITUTE

AHMEDABAD

Ranked No.



in

WEST ZONE & AHMEDABAD

AHMEDABAD

Ranked No.  
**3**  
in  
ALL INDIA

MUMBAI INSTITUTE

Ranked No.  
**2**  
in  
MUMBAI

Ranked No.  
**4**  
in  
WEST ZONE

Ranked No.  
**12**  
in  
ALL INDIA



**BAVISHI® FERTILITY INSTITUTE**

Ahmedabad | Mumbai | Delhi | Kolkata

**Ahmedabad** : Opp. Manjulal Muni. Garden, Next to Adani CNG & Gajarawala Flats, Paldi # Roads, Paldi, Ahmedabad-7  
Ph. +91-79-26574901/02/03 M. +91 98795 72298

**Mumbai**

**Ghatkopar** : 1st Floor, Jayant Arcade, Rajawadi Signal, M. G. Road, Ghatkopar (E), Mumbai-77. Ph. 022-6741 2222 M. +91-91672 04020

**Borivali** : +91-91672 04019 **Andheri** : +91-93204 59595 **Dadar** : +91-93204 59595 **Thane** : +91-91672 04018 **Vashi** : +91-91672 04018

**Delhi** : Bavishi Bhagat Fertility Institute, RZ-F 1/1, Mahavir Enclave, Nr. Dwarka Palam Flyover, Delhi-45. M. +91-93126 30134

**Kolkata** : Bavishi Pratiksha Fertility Institute, Moore Heights, 93, Manik Bandopadhyay Sarani, Nr. Malancha Cinema, Kolkata-40. M. +91-98795 72298

**Surat** : Bavishi Fertility Institute, 9th Floor, Param Doctor House, Lal Darwaja, Station Road, Surat-3. M. +91-98795 72247

Toll Free No. : 1800 233 3434 | E-mail : drbavishi@ivfclinic.com | Web. : www.ivfclinic.com

Technology • Trust