For 48-year-old Sachi Pathak, life was never pain-free. A sports enthusiast, Sachi was always ahead in participating in all gymnastic activities in her school. One day while forming a pyramid (a gymnastic formation) she fell on her knees. Her knees became stiff and her movement became limited. She was rushed to the nearest hospital and over a series of diagnostic tests it was found that she suffered from rheumatoid arthritis.

Rheumatoid Arthritis (RA) is an auto-immune disease that results in a chronic, systemic inflammatory disorder that may affect many tissues and organs, but principally attacks flexible joints like knees, hips, shoulders etc. It can be a disabling and painful condition, which can lead to substantial loss of mobility if not adequately treated.

In Sachi’s case, RA had affected both her knees and hip joints. Her lower body had become completely stiff. She felt an excruciating pain at every step that she took. Despite being restricted to the bed for almost three years, Sachi was determined to rule her life and in 1991, she started a play school in Allahabad. Due to unavailability of the right treatment, Sachi had to take a heavy dose of pain killers to manage her new venture. She even went to Kolkata in search of the right treatment.

In 2012, she was treated at Max Super Speciality Hospital, Saket. Dr S.K.S. Marya, chairman and chief surgeon at the Hospital, who treated her said: “We told her about a new and unique knee and joints implant. While normally 2.5 size implants are used the most, in Sachi’s case we imported the smallest implant available for joint reconstruction, size 1 implant, which is manufactured in America.”

The implants were imported from the US and in July last year, Sachi underwent the first implant surgery in the hip joints. The left and right knees were operated in December 2013 and February 2014 respectively. “In total she has eleven implants after three surgeries which is enabling her to walk pain-free after three decades,” added Dr. Marya.

RA is one of the most disabling types of arthritis. Joints swell up, become tender and warm, making the stiffness extremely painful.

“But in Sachi’s case, we saw an extraordinary example of will power. I am amazed that she fought the disease for 34 years and didn’t let it deter her from living her life,” said Dr. Marya.

Today, Sachi leads a pain-free life. She is delighted to be walking on her feet and recalls the days when even getting up from the chair would cause severe pain in her entire body.
21st century medical advancement
Non-surgical treatment for uterine fibroids and Adenomyosis

With advancement in medical technology, now it is possible to treat various diseases without surgery.

Uterine fibroids are the most frequent tumors of the uterus. Almost 77% women of childbearing age have a fibroid. An estimated 40% need treatment, many of whom are forced to go through emotional, physical and financial trauma of hysterectomy i.e. removal of uterus. Others survive on pain medications.

Adenomyosis is another disease which involves the uterus and it has long been an underdiagnosed condition of the uterus. And about 30% of uterine fibroids are associated with adenomyosis (bulky / enlargement of uterus). Adenomyosis is the presence of uterine lining tissue (endometrium) deep within the myometrium (muscular wall) of the uterus causing enlargement of the uterus.

The ultrasound imaging often fails to distinguish the two conditions. This can pose a problem if myomectomy (open or laparoscopic surgery) is undertaken. Adenomyosis has a poorly defined border and is not “shelled out” as fibroids. An attempted myomectomy for “fibroids” on a patient with adenomyosis can result in extensive bleeding and may result in the need for hysterectomy.

Diagnosis of these conditions is done by ultrasonography and modern imaging techniques like MRI. In India most of the patients still depend on their family doctors & consulting gynecologist for their complete medical information. And many women unfortunately have to undergo hysterectomy (surgical removal of uterus) thinking that no other treatment is available for their uterine problem even if they are young without knowing the complication of these major surgeries.

Common symptoms of fibroids and adenomyosis:
1. Heavy, prolonged painful menstrual periods and unusual bleeding, sometime with clots. This might lead to anemia.
2. Lower abdominal, back or leg pain
3. Lower abdomen pressure or heaviness
4. Bladder pressure leading to a constant urge to urinate
5. Pressure on bowel, leading to constipation and bloating
6. Abnormally enlarged abdomen

Till now the only treatment available for adenomyosis was medication, which if did not help, then patients were forced to undergo surgical removal of uterus (hysterectomy) and for fibroids the laparoscopic / hysterectomy were the options but these are the major surgeries with high rate of complications like recurrence of fibroids, sudden menopause, obesity, emotional trauma and loss of libido.

But now a very effective, easier then abortion & patient-friendly non-surgical technique called “Uterine Artery Embolization” is available that requires only 12-24 hrs hospitalization, need just mild sedation, no surgical scar on abdomen, short recovery than from hysterectomy or even laparoscopic surgery, all fibroids & adenomyosis are treated at one sitting, no blood loss or risk of blood transfusion, resolution of heavy bleeding in majority, within 24 hours. Not only this, even uterus will remains in the same position. Emotionally, financially and physically – embolization has an overall advantage over surgeries. Uterine artery embolization treatment is easier then simple abortion technique and worth trying if women want to save the uterus and to avoid major surgery like hysterectomy.

After working in USA and Singapore, Till date, in just 7 years Dr. Muley has treated maximum number (about 1050) of fibroids and adenomyosis by Uterine Artery Embolization. This is the largest series with very promising results with success rate about 96-98%. And in adenomyosis with effective 99% results.

Dr. Pradeep Muley M.D. Senior Consultant Interventional Radiologist at Max Super Speciality Hospital, Saket, New Delhi has made the India’s first UTERINE FIBROID CLUB for women who are suffering from uterine fibroids. Till date fibroid club has provided useful information to more then ten thousand women from India and abroad.

Dr. Muley has performed over 20,000 non-surgical treatments for various diseases like varicose vein, un-operable liver tumor, bleeding from mouth due to chest TB, brain aneurysm, opening of blocked fallopian tubes that cause infertility, varicocele, BPH & ozone therapy for slipped disc.
We conducted a survey on college students, about 500 in Delhi, on their attitudes toward body image and cosmetic surgery and the findings have been an eye-opener. More than 60 per cent responded in the affirmative on four issues: 64 per cent were conscious about some aspect of their appearance; 68 per cent believed that how they looked affected their relationship with the opposite sex; 65 per cent pointed out that physical appearance and looks were important for success at work; and 80 per cent said they considered the face to be the most important aspect of their appearance.

Have you ever wondered why the face is so important? It's a unique reflection of our individuality. It is the way the world knows us. So 'appearance' becomes the true function of our face. No wonder then that we all want to put our best face forward.

According to our survey, more than half the teens were influenced by the media's portrayal of ideals of beauty and wished to change their looks. It was also quite interesting to know that there was exceptionally high acceptance of cosmetic surgery as a valid means of changing one's looks for better, with about 42 per cent approving and 70 per cent asserting that they would not be embarrassed if others found out that they had gone under the knife.

If we ignore these figures, we will do so at our own risk. But a majority of us still think of people who opt for cosmetic surgery as vain and may even label them as “mentally unstable”. I cannot deny seeing youngsters in my clinic wanting to have a nose look like Michael Jackson's but it is a rarity. On counselling them—that cosmetic surgery cannot change your individuality—they mostly agree that they would be happy to just look their best and not like someone else. Even scientific data proves that the real incidence of mental disorders such as body dysmorphic disorder (BDD) in people seeking cosmetic surgery is quite low: just five per cent. This means that 95 per cent people seeking cosmetic surgery are perfectly normal.

We are dealing with people of impressionable age, bombarded with the media’s distorted view on the ideals of beauty, daunting peer pressure and ever-increasing competitiveness. As plastic surgeons, we have a duty to be responsible and not offer unwarranted procedures to this vulnerable group of 18-plus. We need to think as their well wishers and need to adhere to a doctor’s fundamental dictum, ‘Primum non nocere’, which, when translated from Latin, means ‘First, do no harm’.

Illustration by Pawan Tiwary
A journey from considering adoption to having their own Biological Child

Sheila and Vinod (names changed) were married for 4 years and were trying for a child since then. They initially consulted a gynecologist and after preliminary investigations it was found that Sheila was suffering from a medical condition called as Hypogonadotropic Hypogonadism, where in the brain is not producing adequate hormones to grow the uterus and the ovaries, hence her uterus and ovaries remained baby size.

On the transvaginal (internal) ultrasound, Sheila’s womb was found to be of infantile (baby) size and the ovaries were not accessible.

She was advised to go ahead with adoption by their gynecologist. They consulted many other gynaecologists also for a second opinion but there was no satisfactory outcome.

They then came to Dr. Bhavna Banga, Consultant Infertility & Reproductive Medicine, Max Healthcare, at Max IVF Centre where after studying the case in detail, she explained to the couple, the medical condition and gave them an assurance that they can have a biological child through latest advancement in the field of Reproductive Medicine.

To start with, Dr. Banga prescribed Sheila oral hormone medications which would help her uterus to grow to adult size; this step was taken with a multidisciplinary team consisting of an endocrinologist also.

After a period of 1 year, Sheila’s uterus attained adult size on the ultrasound, but her ovaries were still not accessible.

She was made to understand that one needs a healthy womb, sperms, healthy fallopian tube and eggs into the ovaries to make one pregnant.

In her case, uterus after treatment had attained adult size, the semen analysis was normal; the tubal assessment was confirmed via a tube test called hysterosalpingography.

Now, the next step was to make the eggs grow in her ovaries, which was possible only through injectable hormone treatment.

She was initially counseled to undergo IUI (Intra-Uterine Insemination) treatment, where in a concentrated bolus of morphologically normal motile sperms are directly transferred in to the uterus, around the time of egg release.

There is considerable evidence that such patients, usually respond to injectable hormone treatment very well, after which the ovaries start becoming accessible as the eggs start growing, taking this in to account, Sheila’s was put on a low dose injectable hormone regime which was later escalated as the ovaries were not responding. Even after dose escalation the ovaries were not responsive to the treatment.

At this point, she was counseled for an IVF treatment, as the dose was escalated to the highest level and that the IVF cycle would only give the best reproductive outcome, in the given clinical picture. By then Dr. Bhavana Banga had realized that Sheila was also suffering from a poor ovarian reserve, which is usually not there in the classical patient of hypogonadotropic hypogonadism, wherein they behave like PCOS patient, having multiple eggs in their ovaries but these eggs are lying dormant due to lack of hormone influence.

After approximately 20 days of taking injections, Sheila’s ovaries started showing some response and this little sign was taken as a motivator and the highest dose of the hormone was continued further for 15 days, with intermittent ultrasound tracking and hormone evaluation to assess the adequacy of follicle growth.

In spite of such a prolonged treatment and daily hormone injections for around 40 days, Sheila managed to produce only 5 mature follicles. (Usually in an IVF cycle, the eggs attain maturity after taking injections for around 10-12 days)

Sheila undergoes IVF procedure and manages to produce only 2 good quality embryos, which were transferred under ultrasound guidance by Dr. Bhavna Banga

Post embryo transfer, after a long wait of 14 - 16 days, the first blood levels of beta HCG came positive and from then it was a dream come true for the entire family.

By the grace of god, determination, patience of Sheila and last but not the least the expertise and in-depth knowledge of the subject by Dr. Bhavna Banga, helped the couple to achieve their long awaited dream.

The patient’s antenatal period was uneventful and she successfully delivered a healthy child.
SPY Imaging for Open Surgery
now at Max Saket

The SPY Elite Imaging System provides clinically relevant information that empowers surgeons to make better informed critical decisions in the operating room.

It provides significant benefits in procedures like Coronary Artery Bypass, Cardiovascular, Vascular, Plastic & Reconstructive and Gastrointestinal Surgery.

SPY enables surgeons to capture and review, high-quality image sequences of blood flow in vessels and micro-vessels, tissue and organ perfusion in real-time during the course of performing a wide variety of surgical procedures. These images can also be printed and archived for future use.

**KEY HIGHLIGHTS**

- Provides simple & efficient intraoperative real-time surface angiographic imaging
- Assists the surgeon in making surgical decisions. Easy to use
- Image capture is accomplished in less than two minutes
- Images can be archived for future reference
- Minimal addition to the operative time & anaesthesia
- Totally safe for kidney and takes only 2 minutes to perform

SPY imaging is cleared by the United States Food and Drug Administration (FDA) for use during a variety of applications & open surgeries.
Radiofrequency ablation of Osteoid Osteoma of femur

CASE PRESENTATION
A 22-year-old male presented with progressive left thigh pain of insidious onset for duration of six months. The pain had worsened in the last two months prior to presentation, and was continuous, dull and aching in nature and relieved only with analgesics. His clinical examination was unremarkable except for mild tenderness. All hip movements were normal and pain free.

Plain radiographs of the left thigh revealed small well defined lytic area with extensive sclerosis surrounding it in proximal diaphyseal region of left femur. On MRI, the lesion was hypointense on T1-weighted imaging and hyperintense with a hypointense rim on T2-weighted imaging. CT sections confirmed the above findings and revealed a distinct nidus measuring 4.9 × 4.6 mm. (Figures 1 & 2)

Based on imaging features a diagnosis of osteoid osteoma was made. After informed consent was obtained, it was decided to perform a radiofrequency ablation.

TECHNIQUE
Procedure was performed under general anesthesia using a RF cool tip electrode and Covidien RF generator.

The nidus was localized with 3 mm CT sections. After injecting local anaesthesia at the site, bone biopsy needle was introduced into the nidus and sample was taken from the nidus. Slides were sent for cytopathological examination. RFA needle was then negotiated into the same tract. Figure 3 shows an axial CT section with radiofrequency ablation (RFA) needle placed within tract. After localization, the RFA needle tip was placed in the nidus (Figure 4) Monopolar RFA was performed at a 90°C for a period of 10 minutes at 60 W.

POST PROCEDURE & FOLLOW UP
Post procedure, patient was kept under observation and discharged the next day. Follow up was done after 1 and 2 weeks. The patient no longer has any night pains and does not require pain medication. He has also resumed his normal activity. Patient still on follow up.

CONCLUSION
Radio frequency ablation is an excellent alternative to surgical excision for osteoid osteomas and is now considered as first line treatment for osteoid osteoma. It is a minimally invasive day care procedure with reduced risk of complications and gives very good clinical results.

REFERENCES
Can you remove it from my back and put it on my head?

“I hear reggae rhythms, disco drums, thumping hip-hop, toe-tapping western swing, and 80's techno beats, I think your pacemaker is stuck on 'shuffle'!”

“My blood pressure is 180/90 which mathematically is equal to 2/1 which doesn't seem so high!”
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Team that cares:

Dr. Kewal Krishan
Program Head – Heart Transplant & Ventricular Assist Devices
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Dr. K.K. Talwar
Chairman – Cardiology
Max Super Speciality Hospital, Saket

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