



e - Newsletter Issue 4 On FIBROID







TNFOG Team

President Dr Anjalakshi Chandrasekar

Vice President Dr Revathy Janakiraman **Secretary** Dr S Sampath Kumari

Joint Secretary Dr Radha Madhavi **Treasurer** Dr Vijayalakshmi Gnanasekaran

Joint Treasurer Dr S Saravanakumar

EC Members

OGSSI Dr N Palaniappan Dr Vijayalakshmi Seshadri

Nagercoil Dr Mary Ann Dr Mini Gopal

Tiruvannamalai Dr Radha Madhavi Dr Alamelu

Vellore Dr Elsy Thomas Dr Preethi R N

Trichy Dr T Ramani Devi Dr Deepa Mukundan

Thanjavur Dr Thendral Dr Uma Brindha **Krishnagiri** Dr E Chitra Dr Rekha Rajesh

Karur Dr R Uma Dr Nithya

Salem Dr Vidhya Prabhakar Dr Saravanakumar

Madurai Dr S Sumathi Dr Ambigai Meena

Theni Dr Shanthi Rani Dr Vanitha Rukmani

Erode Dr. Nancy Dr. Purnima **Tirunelveli** Dr Sheeba Jeyaseelan Dr Nirmala Vijayakumar

Namakkal Dr Chandra Ponnusamy Dr R Vairamani

Viruthunagar Dr Aarthi Dr Vinothini

Dindigul Dr J Amala Devi Dr Saroja Veluchamy

Thoothukudi Dr S Pethukani Dr Archana Arulraj

Coimbatore Dr Suma Natarajan Dr T V chitra





President's Message



Dear Comrades

Warm Greetings from me

August is the month of Rejoice One side the Olympic and the other side lot of academic activities through webinar in the midst of third wave corona fear. All of you complete the vaccination and stay safe and we will be prepared to face the third wave also. I am happy that many programs for the Breast-feeding week. I congratulate Dr. Nancy for her kavidhai about how the baby takes shelter in the mother's womb and after birth from the breast milk. This month Marathon CME is on fibroid uterus. The fibroid is the most commonest benign tumour in the reproductive tract and more common during the reproductive yrs. It can be challenging during Adolescence, pregnancy, and menopause. The symptoms range from Asymptomatic to Infertility and AUB. There are many myths associated with fibroid regarding symptoms, diagnosis and management. Till a decade before surgery was the only mode of treatment, now with advancing technology and therapeutics, now we medical therapy and conservative surgery like endometrial ablation, uterine artery embolization and HIFU.

This newsletter discusses all about fibroid and it will be useful to UGs, PGs, practitioners, and consultants

Ever live TNFOG

Jai Hind

Dr Anjalakhi Chandrasekar Founder President, TNFOG





Secretary's Message

We, at TNFOG are releasing a newsletter every month on the same theme of the CME. This month's topic is FIBROID. Why is this topic chosen? Fibroid is a benign common gynaecological complaint occurring at all ages - even in pregnancy. Trust you all find this newsletter and the CME as a great academic feast.

The size of the Fibroids varies from 2 cm to 45.5 kg, the biggest ever reported in the year 2018. The common occurrence is between 20 – 40 pounds. Our doctors from Delhi hold the record for removing a 6.5 kg fibroid laparoscopically.

We have tried to cover all possible info on Fibroids under one roof fibroid in adolescence, pregnancy, infertility and midlife. This pandemic is in one way beneficial to us doctors as by being in the comforts of our home or any chosen favourite place one can gain knowledge without taking much efforts. However, this pandemic has turned life upside down for many of our unfortunate brethren due to job losses, salary cuts, not to mention the trauma and the emotional turmoil the passing away of near and dear ones cause. One can only wish that this sad period comes to an end soon and makes life livable.

I thank all our members from TN OG societies for making our events a grand success.

Warm wishes to one and all!

Dr S Sampath Kumari

Founder Secretary, TNFOG





TNFOG Plans to conduct TWO CME Program Every Month

1. Marathon CME 2. Magalir Nalam

MARATHON CME?? THIS POINTS TO TWO THINGS



1. The YUVA OGCIAN Competition

Yes, every month 2nd Friday CME will have a session with 2 YUVA speakers, Consultants less than 35 years.

The session will be judged by the same judges and at the end of the year, First, Second and Third prize will be awarded to the best speakers at the Annual conference.

All societies gear up and suggest one YUVA speaker of your society.

2. There is a question at the end of every session in the CME. The first Delegate who answers the question will be awarded a prize. This will continue in all the CMEs.









Date: 13.08.2021 (Friday)

(F) Time: 4.30 - 7.15 PM

ICOG Credit Points

Scientific Programme

DURATION	ТОРІС	SPEAKERS			
	INAUGURATION				
04.30 - 05.00 PM	Introduction	Dr. S. Sampath Kumari			
	Inauguration	Tamil Thai Vazhthu & Lamp Lighting			
	Welcome Address	Dr. Anjalakshi Chandrasekar			
	Chief Guest Address	Dr. Atul Praful Munshi			
	Release of e-Newsletter (Issue 4) on "Fibroid"				
SESSION I - YUVA SESSION Judges : Dr. Nidhi Sharma & Dr. Vijayalakshmi Kandasamy					
	Pathophysiology of Fibroid	Dr. Divya Ranjith			
05.00 - 05.30 PM	Diagnosis of Fibroid	Dr. Niranjana Asokan			
	Q & A				
SESSION II					
Chairperso	ons: Dr. Tamiiseivi Setnupatny, Dr. K.	Saraswatni, Dr. Anuradna C.R			
05.30 - 05.45 PM	Infertility & Fibroid	Dr. Selvapriya Saravanan			
05.45 - 06.00 PM	Fibroid in Pregnancy	Dr. Subash Mallya			
06.00 - 06.15 PM	Menopause & Fibroid	Dr. Vijayalakshmi Seshadri			
	Q & A				
SESSION III - PANEL DISCUSSION Moderator: Dr. Parikshit Tank					
06.15 - 07.15 PM	Fibroid Cases	Panelists			
		Dr. A. Vanitha			
		Dr. Victoria Johnston			
		Dr. Damodhar R Rao			
		Dr. Saravana kumar			
		Dr. Vani Madhavan			
		Dr. Jessie Lionel			
Q & A					
07.15 PM	Vote of Thanks	Dr. Saravana kumar			
Coordinator - Dr. S. Rajasri					



For All Registrants, Certificate will be Provided



We solicit your presence



An Educational Initiative Sponsored by
APCOD | egrich | TOTALIS





Table of Contents

- 1. Investigation & Diagnosis Dr. Niranjana
- 2. Infertility & Fibroid Dr. Kundavi Shankar
- 3. Fibroids & Pregnancy Dr. T. Sadhana devi
- 4. Menopause & Fibroid Prof. N. Hephzibah Kirubamani
- 5. Myomas and Laparoscopic myomectomy Dr.Meenakshi Sundaram
- 6. Fibroid in Adolescent Dr. Kalpana



Article: 1 Investigation & Diagnosis

Dr. Niranjana Asokan

MS, DNB, MRCOG



Introduction:

Fibroids are a common occurrence in recent times. Fibroids are benign tumors of myometrium which can be identified by various modalities. The exact etiopathogenesis still remains an enigma but hormonal influence is found to be an important factor in determining growth of fibroid. An increase in size of fibroid leads to various clinical manifestation which in turn makes the diagnosis of fibroid essential to address the issue and treat the cause. This is a brief look into various options available to diagnose a fibroid.

History:

Although fibroids cannot be diagnosed with certainty, suspicion of fibroids can be made based on findings of menorrhagia, dysmenorrhea, pain abdomen or mass abdomen. Other common presentations include infertility, pelvic pain, anemia. Some fibroids can cause pressure effects leading to urinary disturbances. These symptoms are suggestive of other pathology also and definite diagnosis of fibroids can be achieved with other investigations.

Examination:

Most fibroids are found incidentally on pelvic examination in asymptomatic individuals. It is not necessary for asymptomatic fibroids to be small in size. A huge





myoma of even 15cm size can be mistook by patient to be obesity when asymptomatic.

Abdominal examination can show a midline mass arising from pelvis the lower border of which cannot be made out. On bimanual examination the uterus could be enlarged and mass can exhibit transmitted mobility.

Laboratory investigations:

Complete blood count can be done in cases of fibroids to identify anemia due to heavy menstrual bleeding. LDH isoenzymes are used of late as tumour marker for leiomyosarcoma.

IMAGING:

Ultrasound:

This is the go-to investigation for diagnosing fibroids. Ultrasound works on the principle of sound waves to create a picture of uterus and other organs. A transvaginal or transabdominal ultrasound can reveal hypoechoic mass. In cases of degeneration, variations can be noted. The commonly observed are cystic degeneration where the myoma breaks down and loses the characteristic whorled appearance. Leiomyosarcoma although rare, can present with increased vascularity. The diagnosis can be confirmed only with histopathological examination.

Transvaginal scan involves passing the transducer vaginally to visualize the pelvic organs. This can identify fibroids in 90% cases and has sensitivity of 82.6%, specificity of 85.90%, positive predictive value of 82.26%, negative predictive value of 85.90% in detecting fibroids as found in a 2016 study.





Transabdominal scan enables to improve the sensitivity.

However, small subserous fibroids can be missed in some individuals if only ultrasound imaging is used.

Myoma mapping refers to using ultrasound imaging to identify the various myomas in terms of their location and size to determine site of incision, number of accessible myomas, possible difficulty that can be anticipated and ensure better readiness prior to surgery.

3D USG is a recent development which helps in diagnosing a fibroid easily due to visualization of uterine cavity in realtime.

Saline infusion sonography:

This can be used to identify submucous fibroids or polyps in cavity. Saline instilled to distend the cavity and visualized using ultrasound. Any submucous fibroid distorting the cavity or fibroid polyps can be easily identified within a distended cavity better than a routine transvaginal or transabdominal ultrasound.

MRI:

In cases where ultrasound is not definitive, MRI can be used to diagnose fibroids. MRI can reveal the size, shape, location of fibroids in detail and help in preoperative planning. MRI is commonly preferred in cases of large fibroids or around menopause due to risk of leiomyosarcoma.

The risk factors for leiomyomsarcoma on MRI include large size, heterogeneity of tissue signal, central necrosis and ill-defined margins.

Dynamic contrast enhanced MRI a recent advancement helps in diagnosing a leiomyosarcoma better as it determines the rate of clearance of contrast by the tissue cells and plots a graph which can help in differentiating normal cells from cancerous cells.





PET CT is another available option to distinguish leiomyosarcoma. However, fibroids are proliferative cells and hence a benign fibroid can also show increased uptake of the contrast.

INVASIVE PROCEDURES:

Hysterosocpy:

A diagnostic 3mm hysteroscope involves passing a camera into the uterus and allows direct visualization of uterine cavity. This can help in identifying submucous fibroids easily and can also be converted as a therapeutic procedure to remove the fibroids using energy sources.

Laparoscopy:

Although fibroids can easily be identified with non-invasive imaging studies, sometimes when the fibroid undergoes cystic degeneration, differentiation between fibroid and ovarian mass becomes difficult. Likewise imaging studies have disadvantage in the form of bowel shadows, obesity leading to poor visualization. In such cases diagnostic laparoscopy can be useful in visualizing the abdominal cavity and diagnosing any associated pathology.

CONCLUSION:

There are various advancements in the field of imaging studies which has revolutionized the diagnosis and preoperative planning of myomectomy, thereby enabling a patient to have better outcome in terms of fertility, menstrual complaints, and overall quality of life. Choosing the best modality should be based on patients' symptoms, need of investigation and affordability. The main goal is to utilize minimum resources to achieve maximum results.





Article: 2 Infertility & Fibroid

Dr. Kundavi Shankar

HOD, SR consultant IRM,

MMM, Chennai



The relationship between uterine fibroids and infertility has long been a concern to the gynaecologic community. Uterine myomas are heterogeneous tumors in composition, size, location, and number; variations in any of these factors could possibly alter the effect on a woman's fertility status. Recommendations as to which infertile women with fibroids would benefit from myomectomy are varied, given the potential risks and sequelae of surgery,

The question of when to advise removal of a fibroid in the infertile female is a frequent clinical dilemma, but making conclusions based upon the available literature has been problematic. Abdominal or laparoscopic myomectomy can be associated with significant morbidity, including infection, damage to internal organs, and risk of blood or blood product transfusions. Also of concern for the infertile woman



is the high rate of postoperative adhesion formation, especially with myomectomies performed through posterior uterine incisions). Add to these the risks of uterine rupture during pregnancy and increased likelihood of caesarean section, and there are many reasons to be wary of myomectomy when the indications are unclear'.





Ancillary issues in need of being addressed are the number of IM fibroids that necessitate removal, the size of IM fibroids that affect fertility, and whether or not proximity to the endometrium or even location within the uterus are of clinical importance'. Sonohysterogram, hysteroscopy, and magnetic resonance imaging (MRI) are clearly the best techniques available to diagnose the presence of an intracavitary or SM fibroid. Magnetic Resonance imaging can successfully distinguish junctional zone myometrium and outer myometrium; determining the precise location of IM fibroids might further define their impact upon fertility. Moreover, associated diseases, such as endometrial polyps, adenomyosis, and endometriosis, should be identified to determine if the fibroid effect is altered in the absence of such confounders.

Infertility patients with fibroids that impinge upon the endometrial cavity have poorer reproductive outcomes than those infertile patients without fibroids. In addition, those with IM myomas also may have a poorer reproductive outcome, but the lack of quality evaluations make this conclusion tenuous at best. Subserosal fibroids, however, seem to generate no obvious fertility issues. Removal of fibroids with an intracavitary component seems to be of benefit

Insufficient evidence to conclude that the presence of myomas reduces the likelihood of achieving pregnancy. However, there is fair evidence that myomectomy (open or laparoscopic) for cavity-distorting myomas (intramural or intramural with a submucosal component) improves pregnancy rates and reduces the risk of early pregnancy loss. There is fair evidence that hysteroscopic myomectomy for cavity-distorting myomas improves clinical pregnancy rates but insufficient evidence regarding the impact of this procedure on the likelihood of live birth or early pregnancy loss. In women with asymptomatic cavity-distorting myomas, myomectomy may be considered to optimize pregnancy outcomes. An association between a specific number, size, and location of myomas (excluding



submucosal myomas or intramural myomas impacting endometrial cavity contour) and pregnancy outcomes has not been confirmed.

UNANSWERED QUESTIONS What is the impact of leiomyomas on fecundability? Does the degree of cavity distortion impact the benefit of myomectomy? Better assessment of the cavity in clinical trials is needed. What is the true impact of intramural fibroids with no submucosal component on reproductive outcomes? What is the value of myomectomy on ART outcomes?

Recommendations In asymptomatic women with cavity-distorting myomas (intramural with a submucosal component or submucosal), myomectomy (open or laparoscopic or hysteroscopic) may be considered to improve pregnancy rates.

Myomectomy is generally not advised to improve pregnancy outcomes in asymptomatic infertile women with non-cavity–distorting myomas. However, myomectomy may be reasonable in some circumstances, including but not limited to severe distortion of the pelvic architecture complicating access to the ovaries for oocyte retrieval.





Article: 3 Infertility & Fibroid
Dr. T. Sadhana Devi
MD (OG)., DNB (OG)., MRCOG (LON)



Fibroids are most common pelvic tumors in pregnancy.

The prevalence is 10.7% in 1st trimester. They are more common in women originating from South Asia, Africa and Middle East subcontinents. They are associated with advanced maternal age.

Most fibroids are innocent and have no effect on pregnancy. However, some adversely affect pregnancy outcomes.

The effect of pregnancy on fibroids

Despite traditional teaching that fibroids increase in size during pregnancy, USG surveillance of fibroids suggests that pregnancy has various effects on fibroid size. They remain same or decrease in size. Any potential increase in size is more likely in 1st trimester.

The effect of fibroids on pregnancy

Between 10 and 30% of women with fibroids will develop a pregnancy complication. Complications are more likely to occur with fibroids with volume more than 200cm³.





Maternal outcomes

Maternal pain is the most common complication. It is related to red degeneration of fibroids or torsion of a pedunculated fibroids. It can also cause pressure symptoms.

Obstetric outcomes

1] Caesarian section48.5%
2] Failure to progress7.5%
3] Placental abruption2.8%
4] PPH2.5%
Fetal outcomes
1] Preterm labour16.1%

- 2] Malpresentation-----13.0%
- 3] FGR-----11.7%
- 4] PPROM-----9.9%

Antenatal

AN women with fibroids of diameter more than 3cms or those located adjacent to placental site or cervix should be discussed about implications in pregnancy.

AN myomectomy may be required

- a] For severe pain from degenerating fibroid
- b] Large enlarging fibroid in LUS
- c] Torsion of pedunculated fibroid

This increases the rate of caesarean section due to potential risk of uterine rupture





Delivery after myomectomy

CS indications

a] Women with previous myomectomy and breach of endometrial cavity.

b] When more than 50% of thickness of myometrium is disrupted during myomectomy.

c] Pregnancies following Lap Myomectomy have 1.2% risk of uterine rupture.

Canadian national guidelines states that having this procedure should not be an absolute CI to vaginal delivery.

Case scenario: A 26 yrs old primi with 5cms intramural fibroid comes in early labour with adequate pelvis.

How to manage?

Vaginal delivery can be allowed in woman with fibroids excluding cervical fibroids.

Caesarian section: Consent should include the risk of Hysterectomy, admission to ICU and the need for blood transfusion.

Myomectomy at the time of CS

Growing evidence suggests that myomectomy at the time of CS is safe and cost effective

Indications:

a] Fibroids causing difficulty in uterine incision to facilitate safe deliveries.

- b] Large fibroids more than 6cms
- c] Visible sub serosal fibroids.





- The Canadian national guidelines now support both
- AN and caesarian myomectomy. Concerns include
- a] increased intra operative timing.
- b] increased risk of bleeding.
- c] incomplete removal as compared to non-pregnant state.

To conclude:

Uterine fibroids affect many aspects of pregnancy. They are significant cause of PPH and can pose challenging surgical problems.

Further studies are required for antepartum and caesarian myomectomy, the need for greater evaluation of the effect on subsequent pregnancies.



Article 4Menopause & FibroidProf.N. Hephzibah KirubamaniM.D, D.G.O, F.R.C.O.G , F.I.C.O.G, PhD, D.ScSaveetha Medical College, Chennai



Fibroids are noncancerous tumour affecting mostly women in their 30s and 40s. A woman may have just one or more fibroids and they can range in size from very

small to very large. Since fibroids need oestrogen, after menopause, fibroids shrink and cause fewer symptoms and risk of developing newer fibroids are less. Some women do not experience symptoms and may



not even know that they have fibroids. General approach in menopausal women when they are asymptomatic or have mild symptoms is to wait. Continued growth of any uterine masses and/or bleeding after menopause is worrisome and urgently warrants further evaluation for possible association with endometrial carcinoma and into Leiomyosarcoma though it is rare. It is very difficult to make preoperative diagnosis of Leiomyosarcoma as there is no reliable pelvic imaging or biomarker. However, a degenerative change within the uterine mass and an increased LDH level, when present, should suggest consideration of the diagnosis of leiomyosarcoma. If symptoms of fibroid affect the quality of life in menopause, hysterectomy was the treatment of choice. Today, however, we have medical options that ameliorate these symptoms and reduce the size of the fibroid

Postmenopausal Fibroids and Obesity: The increased adiposity seen in obese women creates a higher estrogenic environment from the peripheral conversion





to estrogen predisposing them for growth of Uterine fibroids even after the menopause¹.

Fibroids and aromatase enzyme expression: Fibroid cells express aromatase enzyme, which is present in subcutaneous fat, and locally synthetizes estrogen from androgenic substances such as androstenedione and this is another reason for fibroids to grow after Menopause. This is the reason to suggest aromatase inhibitors in the treatment of symptomatic of fibroids².

Fibroids & Menopausal Hormone Therapy (MHT):

Several prospective clinical trials have shown that Uterine Fibroid growth peaked within the first two years of MHT and it then decreased after the third year³.

Another study by W.C.Ang *et al* suggested that transdermal estrogen and high doses of medroxyprogesterone acetate (MPA) (5mg) may put patient at more risk for increase in Uterine Fibroid size⁴. Study done by Chang *et al* concluded that women who may benefit from MHT should have ultrasound follow up every three months. If the size



of Uterine fibroid is increased, MHT should be discontinued⁵ Some studies have demonstrated an increase in size of pre-existing asymptomatic fibroids and formation of new fibroids with higher doses of progestogen in combination therapy. The finding of low resistance index in uterine arteries of women with asymptomatic fibroids is associated with an increased risk of fibroid growth, and thus making the measurement of pulsatility index of uterine arteries a possible screening tool before initiating hormone therapy in menopausal women with fibroids.





A literature search for studies evaluating the effects of hormone therapy in menopausal women with asymptomatic fibroids demonstrated variable effects of hormone therapy on the volume and size of the fibroids. Although the effect of hormone treatment is variable and statistically insignificant in many cases, the newer selective estrogen receptor modulators having tissuespecific estrogen agonistic and antagonistic actions such as Raloxifene have a favourable clinical profile and may be better alternatives in women with asymptomatic fibroids⁶.

Management of postmenopausal women with Fibroids:

Aromatase inhibitors to suppress endogenous estrogen levels may prove to be useful in the treatment of fibroid related uterine bleeding in postmenopausal obese women.

Parsanezhad *et al* concluded in his study that Letrozole had the same efficacy and fewer side effects as compared to the GnRH group on uterine leiomyoma for uterine bleeding in postmenopausal women⁷

Selective Estrogen Receptor Modulators: Study by Palomba concluded that Raloxifene in postmenopausal women with Uterine Fibroids suppressed the severity of AUB and decreased the size of uterine fibroids⁸. Selective estrogen receptor modulators such as Raloxifene have a favorable clinical profile and may be better alternatives in women with asymptomatic fibroids since it has tissue-specific estrogen agonistic and antagonistic actions.

Tibolone: W.C.Ang *et al* concluded that Tibolone can be used to reduce menopausal symptoms instead of MHT as most studies have shown that it does not increase Uterine Fibroid size





Uterine artery embolization (UAE):

Chrisman *et al* conducted a retrospective study to determine the efficacy of UAE for postmenopausal symptomatic women⁹. Their studies demonstrated that 88% of women with UAE had positive outcomes. thus making UAE a good alternative for hysterectomy¹⁰



Conclusion:

It is still not clear why some Uterine Fibroids regress and others do not during this stage of life, However, hormonal regulations are thought to be involved. So far, it is quite challenging and may be nearly impossible to differentiate the Uterine Fibroids and leiomyosarcoma through imaging alone. LDH levels are invariably elevated in patients with leiomyosarcoma with increased mitotic rates. Woman with presumed leiomyoma with degenerative change within the uterine mass and an increased LDH level is not likely to be a candidate for conservative treatment. Thorough evaluation is of utmost importance to rule out pathologies with similar clinical presentation to give appropriate individualized treatment.

To-date, the most effective treatment is hysterectomy in this age group, although there are other promising therapeutic options under investigation. More research is still needed.

References:

1. Sommer EM, Balkwill A, Reeves G, Green J, Beral DV, Coffey K, *et al.* Effects of obesity and hormone therapy on surgically confirmed fibroids in postmenopausal women. Eur J Epidemiol. 2015;30(6):493–9

2. Shozu M, Murakami K, Inoue M. Aromatase and leiomyoma of the uterus Semin Reprod Med. 2004;22(1):51–60





3. Templeman C, Marshall SF, Clarke CA, Henderson KD, Largent J, Neuhausen S, *et al*. Risk factors for surgically removed fibroids in a large cohort of teachers. Fertil Steril. 2009;92(4):1436–46.

4. Ang V WC Effect of hormone replacement therapies and selective estrogen receptor modulators in postmenopausal women with uterine leiomyomas: a literature review. 2001; 4:284–292 5

5. Chang IJ, Hong GY, Oh YL, Kim BR, Park SN, Lee HH, *et al.* Effects of menopausal hormone therapy on uterine Myoma in menopausal women. J Menopausal Med. 2013;19(3):123–9

6. Srinivasan, Vedhapriya, Martens, Mark G: Hormone therapy in menopausal women with fibroids: is it safe?: Menopause: August 2018 - Volume 25 - Issue 8 - p 930-936

7. Parsanezhad ME, Azmoon M, Alborzi S, Rajaeefard A, Zarei A, Kazerooni T, *et al.* A randomized, controlled clinical trial comparing the effects of aromatase inhibitor (Letrozole) & gonadotropin-releasing hormone agonist (triptorelin) on uterine leiomyoma volume and hormonal status. Fertil Steril. 2010;93(1):192–8.

8. S Palomba 1, A Sammartino, C Di Carlo, P Affinito, F Zullo, C Nappi: Effects of Raloxifene treatment on uterine leiomyomas in postmenopausal women: Fertil Steril. 2001 Jul;76(1):38-43.

9. Chrisman HB, Minocha J, Ryu RK, Vogelzang RL, Nikolaidis P, Omary RA. Uterine artery embolization: a treatment option for symptomatic fibroids in postmenopausal women. J Vasc Interv Radiol. 2007;18(3):451–4

10. Mara Ulin, Mohamed Ali, B., Zunir Tayyeb Chaudhry, Ayman, Al-Hendy Qiwei Yang. Uterine Fibroids in Menopause and Perimenopause: Menopause. 2020 February; 27(2): 238–24



Article: 5

Myomas and Laparoscopic myomectomy

Dr. Meenakshi Sundaram

Consultant Apollo Hospitals Chennai



Uterine leiomyomas (myomas) are benign smooth muscle tumors arising from the myometrium. Most myomas do not cause clinical symptoms and do not require intervention. Nonetheless, the size and location of a myoma are important determinants of its potential to become symptomatic and cause problems ranging from infertility to life-threatening uterine hemorrhage.

Leiomyomas may develop anywhere in the myometrium and occasionally in the cervix, broad ligament, and ovaries. Most frequently, they develop in the myometrial wall and can lead to uterine distortion (of both the cavity and the overall contour of the uterus) if large and multiple.

Historically, symptomatic myomas have been treated surgically, often by hysterectomy. The surgical management of myomas has advanced significantly

with newer, less-invasive forms of therapy. Current options for the management of myomas are numerous and allow for individualized treatment depending on the patient's desires. Despite these advances, there still are considerable controversies and unanswered questions about optimal







surgical or medical management of symptomatic and asymptomatic myomas among physicians. There is no consensus as to when surgical interventions are necessary especially when fertility is desired, what type of therapy is safest or most efficacious, and which treatment option carries the least side effects (either systemic or local such as adhesion formation). This is due partly to the lack of randomized, prospective, well-controlled studies looking at the outcome of treatment for myomas. In the clinical setting, surgical resections of myomas are performed by either open (laparotomy) or endoscopic procedures. Most studies indicate that laparoscopic myomectomy may be an appropriate alternative to abdominal myomectomy in well-selected patients.

Management of Myomas:

During the past few years, there have been a number of studies advancing the knowledge about the efficacy and safety of treatments of myomas including medical and minimally invasive therapies.

Myomectomy:

Criteria for myomectomy for surgical intervention, supported by the American College of Obstetricians and Gynecologists (ACOG) and American society for reproductive medicine (ASRM) are:

- Clinically apparent myomas that are a significant concern to the patient even if otherwise asymptomatic.
- Myomas causing excessive bleeding and/or anemia;
- Myomas causing acute or chronic pain; and
- Myomas causing significant urinary problems not due to other abnormalities.
- Infertility with distortion of the endometrial cavity or tubal occlusion





Laparoscopic myomectomy is a controversial procedure, although it is now considered to be feasible. The technique is reputed to be difficult and time consuming and to involve a high risk of conversion to laparotomy. Concerns related to technical difficulty have led to various recommendations based on myoma size, position, and number. It cannot be denied, however, that this procedure has wellknown advantages compared with laparotomy. The most common indication is the patient's desire to avoid hysterectomy and preserve her uterus. Before laparoscopic myomectomy can be recommended as a routine procedure for patients with very large myomas as opposed to laparotomy, its technical feasibility and complications must be assessed.

Operative technique:

Preoperative preparation

The patients are kept on a liquid diet for two days before the procedure to ensure that bowel loops are empty. Bowel preparation is done. The patients receive prophylaxis against possible thromboembolic episodes with a sequential compression device and subcutaneous injection of low-molecular-weight heparin intra operatively.







Procedure:

Hysteroscopy is performed in most patients at the outset of the procedure.

Port Placement:

Placement of laparoscopic ports is of prime importance as it decides the ease and efficiency of surgery, especially suturing. The extent of the fibroid is first assessed and port positions are decided accordingly. We perform laparoscopic

myomectomy with a 10-mm, foreoblique 30-degree telescope that provides good visualization of large myomas from various angles. In patients with large myomas, placement of the 10-mm the trocar at usual



intraumbilical site could cause the scope to be too close to the fibroid and suture line. The increased magnification would result in a constantly smaller operative field, making precise manipulation of instruments difficult. In such cases, we prefer to place the optical trocar at an appropriate supraumbilical site depending on the size of the uterus and myomas.

We insert the veress needle at the Palmer's point to create pneumoperitoneum. In rare instances where the myoma is extending into the left upper quadrant, veress can be inserted at the corresponding point on the right upper quadrant. A 5-mm trocar is inserted blindly in the left upper quadrant lateral to inferior epigastric vessels and at the level of or above the upper limit of the uterus. If the lesion is very large (extending beyond the umbilicus), we may place both the Veress needle and 5-mm port at Palmer's point.





A 5-mm telescope is inserted through this port and the uterus and myomas are evaluated with respect to size and location. The supraumbilical site for insertion of the 10-mm telescope is chosen depending on the size of the lesion, and the 10-mm trocar is inserted under vision of the 5-mm telescope. We prefer to place this 10-mm trocar at the supraumbilical location under direct vision to avoid damaging major vessels that are directly beneath the insertion site. The 5-mm port inserted initially can serve as an accessory port for the rest of the procedure. This port has to be placed above or at the upper limit of the uterus so that instruments inserted through it will have unobstructed passage above the fundus of the uterus. An additional 5-mm port is inserted in the right midquadrant of the abdomen lateral to inferior epigastric vessels above the level of the upper limit of the uterus.

We insert another additional port in left lower and lateral aspect, medial to the anterior superior iliac spine. Also one of the left lateral ports is converted to a 15-mm port for the morcellator.

Enucleation of the myoma:

Before myomectomy, all pelvic structures and the abdominal cavity are inspected.

The number, site, and location of myomas are noted. If other pathologies are seen, they are usually treated before myomectomy. The course of the ureter, especially in the case of broad ligament myomas, is traced.

We infiltrate up to 30 ml of vasopressin at a concentration of



10 IU/100 ml of saline solution at several points at the base of the fibroid





subcapsularly before the incision. Conventionally, the incision is made on the most prominent part of the myoma. We prefer to make a horizontal incision on the myoma with bipolar coagulation and laparoscopic scissors or with the harmonic ultracision, the width of which varies with the size of the lesion. In case of large pedunculated and subserosal myomas, a circumferential incision is taken leaving enough capsule for suturing the myoma bed. A pedicle clamp can also be placed in pedunculated myomas and the myoma can be cut off from the base.

If we separate the myoma from its bed, the excess capsule can be excised together with the myoma. The incision should be large enough to deliver the myoma through it. It is oriented by the ease it would offer in suturing of the uterine wall.

In our observation, a horizontal incision offers greatest ease in intracorporeal suturing. It is also associated with less bleeding, as intrauterine vessels run in a horizontal direction. Care should be taken to ensure that the incision does not extend to the cornual end of the fallopian tubes.



In the case of a large anterior wall or fundal myoma, we make a curvilinear incision that does not extend to the cornual ends of the tubes during the process of enucleating the myoma. Bonney's hood operation can also be done in case of a posterolateral myoma. For intraligamentous leiomyomata, incision of the broad ligament should be large enough to facilitate enucleation of the myoma and allow spontaneous drainage of the blood after surgery. It may be necessary to divide the round ligament to gain access to an intraligamentous myoma.





Uterine artery ligation:

Laparoscopic ligation of uterine arteries has been combined with myomectomy with a successful reduction in blood loss.Most cases of large myomas can be devascularized before myomectomy by laparoscopic intracorporeal suturing of uterine



arteries. The uterovesical fold of peritoneum is opened and the bladder is pushed down. The uterine vessels are identified on either side and ligated. This devascularises the myoma and decreases the blood loss during the procedure.

The vascular supply of the uterus is principally derived from the uterine and ovarian arteries. Because most blood enters the uterus through the uterine arteries, transient uterine ischemia occurs after uterine artery ligation. Bilateral uterine vessel ligation is an efficient method to obliterate the blood flow to the uterus. Leiomyomas derive their blood supply almost totally from the uterine arteries. Devascularization of the myomas by selective uterine artery ligation is the basis for many treatment modalities used for symptomatic myomas, namely, laparoscopic bipolar coagulation of uterine arteries and uterine artery embolization. The author has also reported that ligation of uterine vessels as the first step in Total laparoscopic hysterectomy considerably reduces the blood loss during the procedure especially in cases of large myomas.

Enucleation is made along the cleavage plane separating the myoma and surrounding myometrium. It is facilitated by traction with a 5-mm myoma screw and countertraction on the cervix with a tenaculum held by the assistant. A degenerated myoma may be too friable to allow a firm grip with a myoma spiral. Hemostasis is ensured. The myoma bed is obliterated with mattress sutures. The





myoma capsule is closed with interrupted intracorporeal sutures with 1-0 polyglyconate or continuous suturing with 1-0 barbed sutures in one or two layers depending on the depth of the myoma in the uterine wall. If the uterine cavity is opened, the endometrium is reposited and the uterine wall is closed excluding the endometrium.

The aim of suture is hemostasis and anatomic apposition. Cheng et al studied the effect of laparoscopic uterine artery occlusion combined with myomectomy for uterine myomas and stated that though hemostasis does not appear to be a problem after artery occlusion, anatomic apposition is the main target of suturing under laparoscopy. Stalks of pedunculated myomas are transected with bipolar coagulation forceps and scissors or with the harmonic ultracision.

Retrieval of the myoma:

The myoma is retrieved through the 15 mm port by morcellation. It is important to ensure that all the pieces of the myoma are retrieved. There have been reports of morcellation remnants after myomectomy or hysterectomy that has developed into myomas and were treated laparoscopically.



The 15-mm port is closed with port closure (Reza Granee) needle under vision. The remaining ports are closed with 3-0 polypropylene subcuticular sutures.

Copious lavage of the peritoneal cavity is performed with normal saline solution, approximately 500 to 1000 ml. The ureters are traced, especially in case of broad ligament myomas.





Placement of adhesion barrier:

Prospective, randomized controlled studies have evaluated

the efficacy of adhesion barriers during laparoscopic myomectomy and found them to be beneficial. The adhesion barrier commonly used is the Oxidized regenerated cellulose. This is placed to cover all



incisions and suture material with a 1cm margin. In a prospective randomized study by Mais et al, during second look laparoscopy, 60% of the adhesion barrier group was free of adhesions compared to 12% adhesion free in the control group. Other barriers that possibly reduce adhesions include hyaluronic acid gel, Spray gel (synthetic absorbable adhesion barrier).

Conclusion:

Laparoscopic myomectomy provides an acceptable, and perhaps a preferable, alternative to abdominal myomectomy for women with symptomatic fibroids who desire uterine preservation and who have infertility primarily related to fibroids. Laparoscopic myomectomy clearly provides a more rapid recovery, less blood loss and fewer adhesions compared to an open approach. Pregnancy rates are comparable to those expected with abdominal myomectomy and the risk of uterine rupture during pregnancy is less than 1% if the uterus is closed appropriately. Meticulous repair of the myometrium using microsurgical principles is essential for women considering pregnancy to minimize the risk of uterine rupture. Adhesion barriers appear to limit postoperative adhesions. A critical issue is the skill necessary for the operating surgeon. Literature reports





conversion rates varying from zero to 28.7%, with most conversions largely because of intraoperative bleeding.

Each surgeon has to determine selection criteria based on personal proficiency especially intracorporeal suturing. We believe, however that with requisite skills and good support, the size and location of myomas need not be limiting factors for the procedure.



Article: 6 Uterine Leiomyoma (or)

Uterine Fibroids in Adolescence

Dr. B. Kalpana

M.D(O.G)., F.N.B (Reproductive Medicine)., FICOG., FIAOG., FICS., Ph.D.

Uterine leiomyomas are benign growths that represent the most common neoplasms of the uterus. Their occurrence in the adolescents population (under the age of 20 years) is infrequent and relatively few cases have been found. The etiology of leiomyomas in adolescents and adults in general is unknown.

Leiomyomas are known to grow in response to both Estrogen and progesterone stimulation and their prevalence increases throughout the reproductive years and reduced after menopause. Higher concentration of estrogen, progesterone and aromatase are found in adolescence fibroids as well as adult fibroids compared to normal myometrial tissue.

Early menarche, exposure to exogenous estrogen, obesity and pregnancy can influence fibroid growth.

The adolescence those who consume higher amount of red meat and broiler chickens are more prone to uterine fibroids as it has possible sources of exogenous steroids, but this is not an evidenced hypothesis.

A genetic component of uterine fibroids in adolescence, pathogenesis involving chromosomes 6, 7, 12 and 14 have been reported in uterine leiomyomas of





adolescence. It is also not known, how these mutations initiate the cascade of events of formation of a fibroid. The intrinsic myometrial anomalies and endometrial injury plays a important role. Uterine fibroids are typically seen in three locations of uterus.

- Subserosal (outside the uterus)
- Intramural (inside the uterus)
- Submucosal (Inside the uterine cavity)
- They can also be pedunculated fibroids.



This is plausible explanation of fibroid formation among menstruating adolescents.

The underlying pathophysiology of uterine fibroid is uncertain.

The clinical presentation of symptomatic uterine leiomyomas in adolescents may include

- Irregular uterine bleeding
- Pelvic pain
- High pressure symptoms such as urinary frequency or urgency.
- Disruption of pelvic structures (Bowel and bladder)
- Back pain

Less common presenting symptoms include

- Dyspareunia
- Bowel problems
- Signs and symptoms related to anaemia.





There can be also patients completely asymptomatic with an incidental finding of fibroids on Imaging.

Mostly the patient present with a pelvic mass without any abnormal uterine bleeding, which explains that the Hb level is normal.

It is necessary to be aware of pelvic tumors, such as Müllerian adenocarcinomas and sarcoma botryoides, which often present as pelvic mass in adolescents.

Initial step to evaluate a woman with pelvic mass is pelvic examination. If leiomyoma is suspected, then diagnostic adjunct should be Ultrasonography.

MRI is the gold standard for the evaluation of pelvic soft tissue tumors.

CT-is not recommended for leiomyomas.

The treatment algorithm for uterine leiomyomas depends on the patient's age and family planning goals as well as tumour size and symptomatology. Asymptomatic leiomyomas can be kept under observation, with regular evaluation to eliminate the possibility of malignant transformation.

There are no treatment guidelines for symptomatic fibroids in adolescents. Surgical treatment such as myomectomy, myolysis and hysterectomy can be done when appropriate.

Myomectomy is the common procedure performed for young women with symptomatic leiomyomas, because it preserves fertility, does not interfere with the hormonal milieu of the developing adolescent, and the recurrence rate is low.

Myomectomy can be performed by laparotomy, laparoscopy, or hysteroscopy, depending on the number, size and location of the fibroids.

Hysterectomy is often performed for adults with symptomatic leiomyomas who do not desire to retain fertility. In adolescents mostly hysterectomy is avoided.





Medical treatments and medically invasive procedures can be performed in order to get rapid recovery. However, the use of such treatment in adolescents lacks supportive evidence and little applicability is known.

Uterine Artery Embolization (UAE) in this procedure the ascending branches of the uterine artery supplying to the leiomyomas are embolized to achieve complete loss of fibroid perfusion. This cause necrosis and shrinkage of the tumour.

The potential complications associated with UAE (ovarian and fallopian tube damage resulting from impaired blood flow), may limit its applicability in adolescents who desire to retain fertility.

Medical management is only used for short-term therapy because of the significant risks associated with long term treatment. GnRH (Gonadotropin releasing hormone), SERMs (Selective Estrogen Receptor Modulators), antiprogestins and aromatase inhibitors are used.

There is only limited evidence available regarding the efficacy of these medical interventions for managing uterine leiomyomas in the adolescent population.

Management of symptomatic fibroids in adolescents can be challenging, with fertility preservation almost always a major priority in addition to the patient's safety and physical wellbeing.

We must make sure that the patient gets pre and post-operative counselling regarding future fertility, recurrence following treatment, Family planning options and the importance of early and frequent antenatal visits when pregnant, as well as early completion of family Size.





Uterine leiomyomas should be considered in adolescent women presenting with a pelvic mass and abdominal pain. The management of leiomyomas in this age group should be conservative, with the goal of preserving fertility.

Accurate evaluation of the etiology of these tumors is important for the future counselling. Pelvic Examination and USG are Important diagnostic methods. Myomectomy is the best procedure in the adolescent group, in view of preserving fertility.



TNFOG

Upcoming Events



Paramedics Training CME

TNFOG with Tamilnadu Women Doctor's Wing

14th - 20th August 2021 | _____ 4.30 - 6.00 PM



Convenor

Topic :

Puerperal



An Educational Initiative Granted by

OVAA Shield-DS | ZOAMATES APCOD



> Date: 19th August, 2021 (Thursday) Time: 04.00pm to 07.30pm



FOGSI Office Bearers



Dr. S Shanthakumari PRESIDENT



Dr. Madhuri Patel SECRETARY GENERAL



Dr. Archana Verma VICE PRESIDENT



Dr. Priya Ganesh Kumar GYNAECOLOGIC ONCOLOGY COMMITTEE

TNFOG TEAM



Dr. Anjalakshi Chandrasekar PRESIDENT



Dr. Sampathkumari.S HONY. SECRETARY



Dr.Vijayalakshmi Gnanasekaran TREASURER



Date: 19th August, 2021 (Thursday) Time: 04.00pm to 07.30pm



Time	Торіс	Speaker		
	Introduction	Dr.S.Sampathkumari		
04.00 pm to 04.30 pm	INAUGURATION			
	Welcome Address	Dr.Anjalakshi Chandrasekar		
	Tamil Thaivazhthu			
	Lighting of Lamp			
	Chief Guest	Dr. Shanthakumari.S		
	Cuesta of Honoura	Dr. Archana Verma		
	Guests of Horiours	Dr. Ramani Rajendran		
SESSION 1				
	Chair Person	Dr. C. Sumathi Surendran		
04.30 pm to 05.00 pm	A to Z of Cervical Cancer Eradication	Dr. Priya Ganesh Kumar		
SESSION 2				
05.00 pm to 07.30 pm	Panel Discussions			
	Endometrial Cancer: Regularly Faced Dilemmas			
	Moderators	Dr. Bindiya Gupta		

05.00 pm to 05.45 pm

Endometrial Cancer: Regularly Faced DilemmasModeratorsDr. Bindiya GuptaDr. Vinotha ThomasPanelistsDr. Ashok Kumar PadhyDr. Garima YadavDr. Seema SinghalDr. Jeba Karunya .R.Prof. Surg. Lt. Commander Sailatha.R.

	Ovarian Cancer: Opening the Pandora's box	
	Moderators	Dr. Richa Bansal
		Dr. Pooja Singh
05.45 pm to 06.30 pm	Panelists	Dr. Anupama Rajanbabu
		Dr. Michelle Aline Antony
		Dr. Senthil Rajappa
		Dr. R. Manonmani

	Vulva : No man's land	
	Moderators	Dr. N. Sundari
		Dr. Anjana Chauhan
06.30 pm to 07.15 pm	Panelists	Dr. Pariseema Dave
		Dr. Bhagyalaxmi Nayak
		Dr. Vijayalakshmii Khandasamy
		Dr. Rashmi Bagga

07.15 pm to 07.30 pm

Audio Interaction Vote of Thanks



> Date: 19th August, 2021 (Thursday) Time: 04.00pm to 07.30pm



National Faculty



Dr. Anjana Chuhan



Dr. Anupama Rajanbabu



Dr. Ashok Kumar Padhy



Dr. Bhagyalaxmi Nayak



Dr. Bindiya Gupta



Dr. C.Sumathi



Dr. Garima Yadav



Dr. Jeba Karunya R



Dr. Michelle Aline Antony



Prof. N.Sundari



Dr. Pooja Singh



> Date: 19th August, 2021 (Thursday) Time: 04.00pm to 07.30pm



National Faculty



Dr. Priya Ganesh Kumar



Dr. R. Manonmani



Dr. Ramani Rajendran



Dr. Rashmi Bagga



Dr. Richa Bansal



Dr. Sailatha.R



Dr. Seema Singhal



Dr. Senthil Rajappa



Dr. Vijayalakshmi.K



Dr. Vinotha Thomas

CLICK HERE TO JOIN

Meeting ID: 918 7466 0442

Passcode: REGESTRONE











INNOVATIONS, SCIENCE WITH EXCELLENCE



www.shieldconnect.in

