	surgery or in women approaching menopause		symptoms, and bone loss; increased recurrence risk with myomectomy	
Levonorgestrel releasing intrauterine system (mirena)	Treats abnormal uterine bleeding likely by stabilization of endometrium	Most effective medical treatment for reducing blood loss; decreases fibroid volume	Irregular uterine bleeding, increased risk of device expulsion	Yes, if discontinued after resolution of symptoms
Non-steroidal anti-inflammatory drugs	Anti-inflammatories and prostaglandin inhibitors	Reduce pain and blood loss from fibroids	Do not decrease fibroid volume; gastrointestinal adverse effects	Yes
Oral contraceptives	Treat abnormal uterine bleeding likely by stabilization of endometrium	Reduce blood loss from fibroids ease of conversion to alternate therapy if not successful	Do not decrease fibroid volume	Yes, if discontinued after resolution of symptoms
Selective progesterone receptor modulators	Preoperative treatment to decrease size of tumours before surgery or in women approaching menopause	Decrease blood loss operative time, and recovery time; not associated with hypo-estrogenic adverse effects	Headache and breast tenderness progesterone receptor modulator-associated endometrial changes; increased recurrence risk with myornectomy	Depends on subsequent procedure
Tranexamic acid (cyklokapron)	Anti-fibrinolytic therapy	Reduces blood loss from fibroids ease of conversion to alternate therapy	Does not decrease fibroid volume; medical contraindications	Yes
Surgical therapies Hysterectomy"	Surgical removal of the uterus (trans-abdominally, trans-vaginally, or laparoscopically)	Definitive treatment for women who do not wish to preserve fertility, trans-vaginal and laparoscopic approach associated with decreased pain, blood loss, and recovery time compared with trans-abdominal surgery	Surgical risks higher with trans-abdominal surgery (e.g. infection, pain, fever, increased blood loss and recovery time); morcellation with laparoscopic approach increases risk of iatrogenic dissemination of tissue	No
Magnetic resonance guided focused ultrasound surgery	in situ destruction by high intensity ultrasound waves	Non-invasive approach shorter recovery time with modest symptom improvement	Heavy menses pain from sciatic nerve irritation higher re-intervention rate	Unknown
Myomectomy	Surgical or endoscopic excision of tumours	Resolution of symptoms with preservation of fertility	Recurrence rate of 15% to 30% at five years, depending on size and extent of tumours	Yes
Uterine artery embolization	Interventional radiologic procedure to occlude uterine arteries	Minimally invasive; avoids surgery short hospitalization	Recurrence rate >17% at 30 months post embolization syndrome	Unknown

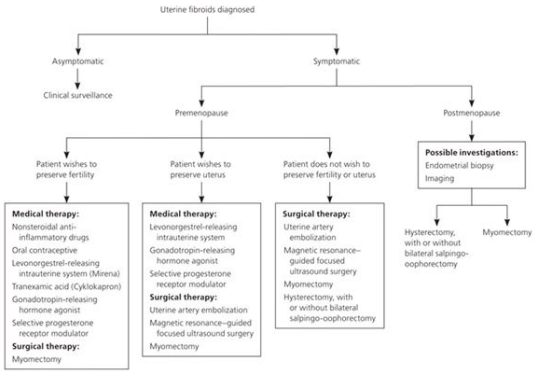

Figure 2: Management of uterine fibroids.

DISCUSSION

Uterine fibroids are usually benign neoplasms of the uterus that afflict 5-20% of women of reproductive age.

It may be present without symptoms. However, depending on their size and location, they may contribute to menstrual irregularities, dysmenorrhea and infertility, pain in the abdomen, abdominal fullness, pressure symptoms and complications during pregnancy.

Ultrasonography, laparoscopy and hysteroscopy help in establishing the diagnosis of uterine fibroids. They are also useful to determine the number, location and size of the tumors. This helps in planning treatment.

Asymptomatic tumors often do not require treatment but follow up is recommended. Symptomatic fibroids require treatment.

Myomectomy is recommended for younger women who want to keep their reproductive function, whereas hysterectomy is recommended for older people.

Except for menorrhagia relief, medical therapy does not cure fibroids. When a large fibroid or numerous fibroids are discovered, they are used as adjuvants to surgery. They decrease blood loss after surgery by shrinking the fibroids.

Endoscopic procedures enable the removal of moderate sized myomas. Hysterectomy is advised in elderly and multiparous women [14-19].

CONCLUSION

Minimally invasive surgery such as laparoscopy, hysteroscopy and arterial embolization has reduced the frequency of abdominal surgeries in women with uterine

fibroids. It is now possible to do MRI guided high frequency ultrasonic imaging.

Because of pelvic adhesions and the danger of scar rupture during pregnancy or labor, laparoscopic myomectomy and uterine artery embolization are not indicated in infertile women. Location, size and number of fibroids decide the route of operation.

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