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MEDICAL TREATMENT OF FIBROMA: PRE-SURGICAL ONLY? USE OF GNRH ANALOGUES

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Uterine fibroma (fibroids, leiomyomas, myomas) are benign masses that develop from uterine smooth muscle tissue. They are the most common type of reproductive tract mass in women of reproductive age. In the US, they account for an estimated 27 percent of gynaecologic admissions to hospital facilities.
In many women, fibroids are asymptomatic, others suffer from abnormal uterine bleeding, anaemia, pelvic pain and pressure. More severe implications are activity restriction, sexual health issues, gastrointestinal and genitourinary symptoms, difficult placement and reduced efficacy of intrauterine contraceptives (IUCs) and infertility. The choice of therapy is influenced by different factors, such as the severity of symptoms, tumour characteristics, age, and the wish to preserve fertility and therefore the uterus.
Treatment options include pharmaco-therapy, uterine artery embolization (UAE), myomec-tomy, hysterectomy and magnetic resonance guided focused ultrasound. The administration of GnRH agonists, such as leuprolide acetate (Lupron), achieves the greatest success in shrinking fibroids. GnRH antagonists suppress gonadotropin release within 4 to 8 hours in the absence of an initial “flare-up”. Therefore, GnRH antagonists can achieve treatment effects similar to GnRH agonists in a shorter time. For different reasons not discussed here, GnRH-agonists are preferred.
Pre-surgical treatment by GnRH-agonists is the optimal choice if the volume of the fibroma nodules has to be reduced. The decrease in fibroma volume ranges from 27% to 70%. Pain and pressure symptoms are relieved within the first 2 months, maximal diminution of uterine and fibroma size occurs within the first 12 weeks of therapy. The typical “menopausal” side effects, such as hot flashes, mood swings, headaches, sleep disturbances and (in long-term users) osteoporosis, due to the induced oestrogen-deficiency, can be prevented by a steroid “add-back” therapy. In particular, tibolone has proven to be effective without compromising the beneficial effects on fibroma size and cycle suppression. A rare complication of GnRH-administration may be the symptomatic necrosis of fibromatic nodules. GnRH agonists are highly efficient in myomas characterized by a positive blood flow (Doppler ultrasound) and a high concentration of unbound progesterone receptors, but not in fibroids with a hypo-echoic appearance, high hyaline change or collagenous tissues and chromosomal rearrangement. Also, pedunculated or cervical fibromas are not reacting well to GnRH agonists.

Unfortunately, the effect of GnRH agonists on the reduction of fibromas size is transient. The reversal of oestrogen deprivation takes about 4 weeks after discontinuation of GnRH agonists. Most fibroma nodules return rapidly to their initial size within about 6 months after discontinuation of GnRH agonist administration.

In conclusion, in women with fibroma, GnRH agonists are mainly used as an adjuvant therapy for preoperative shrinking of the fibromas. The pre-surgical size reduction simplifies surgery and decreases operative morbidity (such as blood loss and operating time). Although GnRH agonists my be used to postpone surgery, they are not recommended as a curative approach.