HORIZONS

Endometriosis: Treatment Modalties

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The presence of functioning endometrium (glands& stroma) in sites other than uterine mucosa is called endometriosis. Endometriosis is a disease of the child-bearing period. Women are usually 30 to 40 years old. A familial tendency has been identified. Its incidence appears to be on increase, partly due to improvements in diagnostic techniques and partly due to changing social patterns like late marriage and limitation of family size. It is more commonly amongst the affluent class. Approximately 24 percent of women who complain of pelvic pain are subsequently found to have endometriosis. The overall prevalence, including symptomatic and asymptomatic women, is estimated to be 5 to 10 percent. Pathogenesis is not well understood and is probably multifactorial in origin(1).

It is seen widely spread throughout the lower pelvis usually below the level of ubmlicus. Most often it is seen in the ovaries, posterior cul-de-sac including uterosacral ligaments, in the adnexal region, fallopian tubes, pelvis, peritoneum over bladder, sigmoid colon, back of the uterus, intestinal coils, pelvic lymph nodes, rectovaginal septum and appendix.

Umbilicus, ureter, bowel wall and remote sites like lung, pleura, liver, endocardium and extremities are also affected. It is also reported to be seen over scar following hysterotomies, classical caesareans, myomectomies, amputated stumps of cervix, scars of vulva and epiziotomy.

The common symptoms are, pain, infertility, menorrhagia, ploymenorrhoea, painful or difficult defecation, diarrhea, malena & haematuria if sigmoid or rectum and bladder are involved. If the lungs are involved, endometriosis may cause pleuritic pain or hemoptysis. If endometrial cells implant in the brain, the patient may experience seizures.

Pelvic ultrasonography, computed tomography and magnetic resonance imaging are occasionally used to identify individual lesions, but these modalities are not helpful in assessing the extent of endometriosis.Most women with endometriosis have normal pelvic findings, and laparoscopy is necessary for definitive diagnosis.

Medical treatment of Endometriosis

Drugs

Combined Oral Contraceptive Pill (2)

The main advantages of the pill are that it is inexpensive and is usually reasonably well tolerated by women. It can also be taken safely for many years if necessary, unlike most of the other hormonal drug treatments for endometriosis.Like all the other hormonal treatments, the pill does not cure endometriosis. Rather, it alleviates the pain of endometriosis by suppressing menstruation and inhibiting the growth of the endometrial implants.

Progestins

The progestins are effective treatments for the symptoms of endometriosis. However, like all the hormonal drugs used for endometriosis, they have side effects, which some women find intolerable. They are safer and cheaper than the GnRH-agonists and danazol.

It is not known precisely how progestins relieve the symptoms of endometriosis, but they probably work by suppressing the growth of endometrial implants in some way, causing them to gradually waste away. They may also reduce endometriosis-induced inflammation in the pelvic cavity. The progestins control pain symptoms in approximately 3 out of 4 women. However, they may not relieve symptoms completely.

There is some evidence to justify using hormonal drug treatments following surgery to suppress the growth and

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development of any remaining or new endometrial implants .Repeat courses of progestins may be used for women with recurrent endometriosis.

Danazol (3-6)

Danazol is a synthetic androgen. Danazol is an effective treatment for endometriosis, and has the same effectiveness as the other hormonal treatments. However, it has many androgenic (male-like) side effects, including weight gain, increased body hair and acne. Its unpleasant side effects and its tendency to adversely affect blood lipid (cholesterol) levels mean it is not usually the first choice of treatment for endometriosis.

It suppresses its growth and development temporarily, so the disease may recur after stoppage of treatment. Danazol has a multitude of effects on the body. Some of these effects combine to produce high levels of androgen and low levels of oestrogen in the body. This hormonal environment stops menstruation and suppresses the growth of endometrial implants, causing them to degenerate. The symptoms of endometriosis usually begin to diminish by the end of the second month. Most women will resume ovulation and menstruation within 4–6 weeks of stopping treatment.It relieves pain in approximately 90% of women

GnRH-Agonists (3-6)

They are modified versions of a naturally occurring hormone known as gonadotropin releasing hormone, which helps to control the menstrual cycle.

When used continuously for periods of longer than 2 weeks, they stop the production of oestrogen by a series of mechanisms. This deprives the endometrial implants of oestrogen, causing them to become inactive and degenerate. They appear to be at least as effective as progestins in relieving pain.

NSAIDs

These drugs can be effective in alleviating pain and inflammation but they do not reduce the size of the implants or treat the source.

It is thought that much of the pain of endometriosis, especially menstrual pain, is due to inflammation that may be caused in part by high levels of "bad prostaglandins." Women with endometriosis have been shown to produce an excess of a prostaglandin called PGE2, which causes inflammation, pain, and uterine contractions. Theoretically, NSAIDs would seem to be a good choice for relieving menstrual pain because most of them work by blocking the production of all prostaglandins.

Advances in the Medical Treatment (3)

Gonadotrophin releasing hormone analogues and any combined hormone replacement therapy (continuous or sequential) or tibolone

Aromatase inhibitors: At the moment, the treatment of endometriosis with aromatase inhibitors is still experimental, because the research is still in its early days. Research has shown that aromatase is also found in high levels in the ectopic endometrial tissue of women with endometriosis, which contributes to the growth of their endometriosis. aromatase inhibitor suppresses the growth of these endometriosis, and reduces the associated inflammation. This, in turn, significantly reduces the pelvic pain.

GnRH agonist treatment combined with tibolone

Tumour necrosis factor-{alpha} blockers

Leflunomide—an immunomodulator—induces regression of endometriosis (7).

Antiangiogenic Therapy (8).

Surgery

Surgery is used to treat moderate to severe cases of endometriosis.

Laparoscopy

A laparoscopy is usually the only surgical option for women who want to preserve fertility. A laparoscopy can be used to freeze the implants, burn them with a laser, or surgically remove them, depending on the type of lesion. In a laparascopy done for diagnostic purposes, the lesions are usually removed at the same time. Endoscopic treatment of deep infiltrating endometriosis. (9).

Several surgical treatments are available for endometriomas:

-Simple puncture- Draining the fluid from the cyst.

-Ablation - Drain the cyst and remove its base with laser or electrosurgery.

-Cutting away of the cyst wall - This is the procedure of choice to decrease recurrence of disease.

-Draining, drug therapy, and surgery- Endometriomas

can also be drained, treated with medication, and later removed by surgery.

Laparotomy

In severe and advanced cases and in women who choose not to preserve fertility, laparotomy and or laparoscopy may be the modality of management.

Laparoscopy more effective than laparotomy?

Laparoscopy and laparotomy are equally effective in relieving pain and improving fertility. Endometriosis recurs in about 20 percent of cases over 5 years in both procedures. Patients who undergo laparoscopy, however, experience a more rapid and less painful recovery.

Measures which prevent endometriosis

-Going for pregnancy
-Oral contraceptives use
-Tubal patencey test should be avoided just before the commencement of menstruation
-Operations on the genital tract should be scheduled in postmenstrual period
-Classical Caesarean section and hysterotomy should be avoided to prevent scar endometriosis

Hence, Endometriosis, with the availability of such a wide variety of tretment modalities remain no longer a reson for worry for doctors and patients provided right treatment is individualised for a particular patient.

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