Editorial: Recent developments in Gynaecology

BG Lindeque

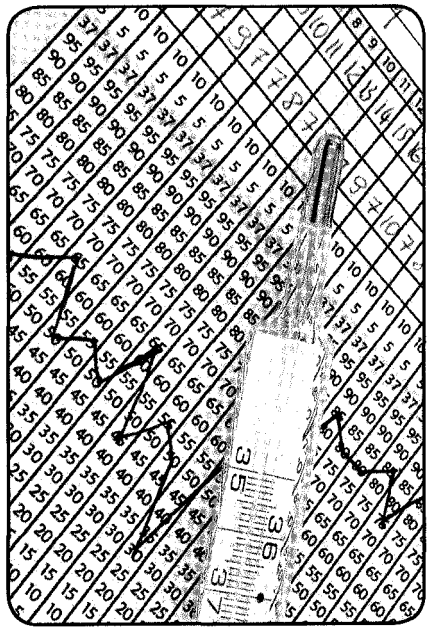
Recent developments in operative gynaecology, especially in the field of endoscopic surgery, are more than matched by developments in consultation gynaecology. Only a few areas will be mentioned.

Endoscopic gynaecologic surgery has become widely practiced in South Africa. This has expanded into gynaecologic cancer surgery where gynaecologic oncologists may perform laparoscopic lymph node dissection on patients with endometrial or cervical cancers under certain circumstances: The standardization for the technique of radical trachellectomy as surgical management of patients with Stage IB1 cervical cancers desiring future fertility opened new possibilities for young women. The trachellectomy (radical removal of the cervix) can be performed transabdominally or transvaginally. In the latter case laparoscopic lymphadenectomy complements the technique greatly. Radical trachellectomy has been performed in several centres in South Africa with subsequent successful pregnancies occurring in a number of patients.

In patients with endometrial cancers with co-morbid disease where vaginal hysterectomy is elected as the surgical technique to remove the cancer, available evidence shows that laparoscopic lymphadenectomy is a safe and effective way to perform the full cancer operation.

Another prominent development in endoscopic surgery is the ability to manage rectovaginal endometriosis with or without the need for bowel anastomosis. This most severe form of endometriosis is difficult to manage under all circumstances and in expert hands the morbidity is much reduced using the laparoscopic approach. As with all surgical techniques expertise in doing these procedures must be attained by further training and focused practice.

In the office another technical improvement, that of transvaginal ultrasound, has changed the practice of Gynaecology. The use of transvaginal ultrasound in Infertility practice is well known. It has revolutionized management of postmenopausal bleeding, other bleeding abnormalities, assessment of pelvic masses and very importantly, diagnosis and management of ectopic pregnancy. If a patient in the reproductive years has bleeding or pain especially with a missed period, a beta-hCG level of more than 5000 IU/l and an empty uterus on transvaginal ultrasound, the diagnosis of ectopic pregnancy is confirmed. In such early cases laparoscopic salpingostomy or salpingectomy is often preferred.



Screening for cervical cancer and its precursors has been performed in a haphazard way in South Africa over the years. The current policy of three government supported Pap smears in a woman's life taken between ages 35-55 will assist in downstaging cervical cancers and also detect a large number of women with precursor lesions. This policy is not fully implemented and in many regions women continue to be unscreened, probably the biggest risk factor for the development of cervical cancer. In the face of the HIV pandemic this policy will probably be too late for many women.

New developments in this field include the availability of HPV testing. It is accepted that high risk types of HPV are the carcinogens for cervical cancer. Using PCR technology high risk HPV types can be identified using sampling techniques similar to that for cervical cytology. If a woman older than 30 years has a persistent high risk HPV infection her risk for cervical cancer and its precursors increase considerably.

The great news item of 2006/7 is the becoming available of HPV vaccines. These vaccines have been shown in controlled trials to effectively prevent the development of cervical precancers and cancers. The implementation of a HPV vaccine policy is still some way off but will be a most important public health measure in gynaecology.

The HIV pandemic continues to impact on many aspects of women's health including infertility, associated sexually transmitted infections, the prevalence and growth rate of gynaecologic malignancies and increased morbidity and mortality of most other gynaecologic disorders.

There are continual improvements in understanding disorders dealt with in the office. Several of these disorders will be addressed over the next six months in this Journal. Those include contraceptive problems and benefits, the premenstrual syndrome, abnormal uterine bleeding and urinary incontinence.

Pregnancy related death is a continuing problem in South Africa. One of the causes relates to abortion and the tragic consequences of unsafe abortion. Modern safe techniques of termination of early pregnancy include the use of misoprostol and manual vacuum aspiration. Widespread use of these methods has contributed to a decrease in abortion related deaths over the past three years. Termination of pregnancy (TOP) is a very controversial topic but there is a clear need for that in our country and the TOP services are widely utilized.

This clearly links gynaecology with the whole concept of women's health. Internationally this is seen as a concerted effort to support the health, rights and lives of women. Some of these rights are very fundamental: right to live, to heath care, to reproduction, to choice in sexual activities and more. The practitioner dealing with women's health issues has a huge responsibility not only concerning the physical health of the female patient but also concerning the basic rights of the women.

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Table 3: The DSM IV diagnostic criteria of the Amercian Psychiatric Association. (Diagnostic and Statistical Manual Edition IV)

RESEARCH CRITERIA FOR PREMENSTRUAL DYSPHORIC DISORDER

A) In most menstrual cycles during the past five year, five (or more) of the following symptoms were present for most of the time during the last week of the luteal phase, began to remit within a few days after the onset of the follicular phase, and were absent in the week post menses, with at least one of the symptoms being either of the first four:

1. Markedly depressed mood, feelings of hopelessness, or self-deprecating thoughts
2. Marked anxiety, tension, feelings of being "keyed up" of "on edge"
3. Marked affective liability (e.g., feeling suddenly sad or tearful or increased sensitivity to rejection)
4. Persistent and marked anger or irritability or increased interpersonal conflicts
5. Decreased interest in usual activities (e.g., work, school friends, hobbies)
6. Subjective sense of difficulty in concentrating
7. Lethargy, easy fatigability, or marked lack of energy
8. Marked change in appetite, overeating, or specific food cravings
9. Hypersomnia or insomnia
10. A subjective sense of being overwhelmed or out of control
11. Other physical symptoms, such as breast tenderness or swelling, headaches, joint or muscle pain, a sensation of "bloating", weight gain

B) The disturbance markedly interferes with work or school or with usual social activities and relationships with others (e.g., avoidance of social activities, decreased productivity and efficiency at work or school).

C) The disturbance is not merely an exacerbation of the symptoms of another disorder, such as Major Depressive Disorder, Panic Disorder, Dysthymic Disorder, or a Personality Disorder (although it may be superimposed on any of these disorders).

D) Criteria A, B, and C must be confirmed by prospective daily ratings during at least two consecutive symptomatic cycles. (The diagnosis may be made provisionally prior to this confirmation.)

and PMS and PMDD are strongly inherited, predisposition to other mood disorders do not seem to predict PMS/PMDD.[6]

Steroid hormone fluctuations indeed cause cyclical change in the opoid system (beta-endorphin), the GABA system and the serotonin system centrally.[7,8] It appears that the fluctuations caused in these neurotransmitters are accentuated in women suffering symptoms of PMS/PMDD, pointing towards increased biological sensitivity to cyclical change.[9,10]

This genetically determined biological vulnerability is most likely also affected by personal and social factors influencing the severity of symptoms. Several recent studies, however, have challenged the importance of external factors like psychosocial stress.[11,12]

TREATMENT

Premenstrual symptoms are common and do not need treatment, the premenstrual syndrome (PMS), however is less common and more frequently would need intervention. The premenstrual dysphoric disorder (PMDD) is much less common and would mostly need treatment. Because these disorders are not easy to diagnose, the symptoms frequently not easy to quantify, the response to treatment is also not easy to measure. Patients would commonly perceive their symptoms as varying substantially from month to month and this makes the response to treatment even more difficult to judge.

It would be important to explain to patients who present with this syndrome complex that the problem is not caused by an abnormality in hormone secretion. It is also important to point out that this problem is not as easily treatable as pneumonia where one can use a course of antibiotics that solves the disease permanently. The treatment plan would virtually always be a long-term plan.

Different treatment options will be discussed with the evidence for prescribing these therapies.

Serotonin Reuptake Inhibitors

This group of drugs probably have the best evidence for being effective in this syndrome. The efficacy of particularly fluoxetine has been documented in quite a number of studies. The typical positive response rate is as high as 75%, with the usual prescribed dosage 20mg per day. A higher dose is not more effective and significantly increases the side effects. It is also important to note from these trials that both the affective and somatic symptoms improve on this drug and that the response is maintained over the long term.[13, 14] Fluoxetine is approved by the FDA for PMDD but not by the European drug regulators because of their concern with lack of strict diagnostic criteria in certain trials and their concern with possible inappropriate prescribing practices. There are also publications to support the use of other SRI's such as paroxetine and citalopram.

Only administering the drugs during the luteal phase is also supported by placebo controlled trials and might well be the better option to reduce side-effects and cost. The drug would typically be given from about day 14 to the first day of menstruation.[15] Physical symptoms might not respond as well on the intermittent regime as continuous use.

Antidepressants not belonging to the group of SRI's such as MAOI's and the tricyclic antidepressants are unfortunately not effective in this condition. The same is true for lithium. These drugs do not fare better than placebo in trials and should not be used.

Benzodiazepines

Alprazolam may be beneficial in women with PMS but does not seem to work well in patients that suffer from PMDD. It would not be the first drug to use and the addictive potential is real.[16,17,18]

Oral Contraceptives

Inducing anovulation should alleviate the symptoms of this disease but several studies failed to show any improvement using some of the older formulations. There are however more than one placebo controlled trial where the newer progestogen drosperinone was used. In both the contraceptive formulations that contain drosperinone (with 24 and 21 day active tablets) statistically significant beneficial effects have been shown.[19,20]

GnRH analogues

By inducing anovulation with these agents a woman is relieved from all hormonal fluctuations and PMS/PMDD will improve. It is more effective in preventing physical and irritability symptoms than depressive symptoms. Unfortunately side effects such as flushing and emotional sequelae are common. Add-back therapy to control the hypo-estrogenic symptoms will give protection against the flushing and bone

loss but still does not make this a viable option in the long term. It could however be used to predict the effect of surgical oophorectomy.[21,22,23]

Danazol

Danazol does improve the symptoms but only once high enough dosages are used to suppress ovulation. Unfortunately the androgenic side effects are too severe at these dosages for most patients.

Spironolactone

This steroid like diuretic should have the best likelihood to be effective but results of trials are at best ambiguous.

Exercise

It is difficult to investigate this option in a blinded manner but trials and observational data suggest a beneficial effect. Exercise should be recommended.

Calcium

There are studies that show a beneficial response on calcium supplementation if 600mg twice daily is used. Other studies show a dose related association between intake and severity of symptoms.[24]

Other Supplements

The response on vitamin B6 is at best not dramatic but it might well be worth trying.[25] Magnesium supplementation has even less convincing scientific evidence but small trials have described modest improvements. Vitamin E supplementation at 400IU per day was described in small studies to improve the physical and affective symptoms.

Evening Primrose oil, gingko biloba and essential free fatty acids really have no evidence to show their efficacy and progesterone has been shown not to work.

SUGGESTED APPROACH TO MANAGEMENT:

In patients where the diagnosis has been established and the woman is symptom free in the follicular phase, it would be important to quantify her symptoms. If the situation is manageable the patient should be advised to exercise in a scheduled program with significant intensity. Vitamin B6 should probably be offered as it might work and is harmless as long as doses not more than 100mg per day is used.

If distress is judged to be severe SRI's should be offered. About 30% of patients will not respond to SRI's and it might be worth while increasing the dose, changing to a 2nd SRI or switching from luteal phase therapy to continuous therapy. A few patients will have significant side effects such as nausea, headache, poor libido and anorgasmia.

Drosperinone containing contraceptives should frequently be used and in recalcitrant cases alprazolam, spironolactone and calcium supplements might offer some relief. As an absolute last resort and when GnRH has been successful in alleviating symptoms removal of the uterus and ovaries should be contemplated.

See CPD Questionnaire, page 39

(P) This article has been peer reviewed

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