CASE ONE

Short case number: 3_18_1
Category: Endocrine and Reproductive Systems
Discipline: Obstetrics & Gynaecology
Setting: General Practice
Topic: Menorrhagia

Case

Jane Parker, a 22 year old woman, presents to your surgery concerned about her heavy periods. She states that the she has had painful periods since menarche but both the amount of loss and the pain have increased over the last 6 months. She is concerned because her periods now last for 7 days with lots of flooding in the first 3 days and significant pain. She finds she is taking time off work and has run out of sick days and is concerned she may lose her job.

Questions:

1. List the questions you would ask to determine if Jane's bleeding is abnormal. What differential diagnosis would you consider as the cause of abnormal uterine bleeding?
2. How do you quantify the amount of blood loss with a menstrual period?
3. What routine tests are usually carried out in a woman with menorrhagia under the age of 40? Why?
4. In which women presenting with abnormal uterine bleeding is it mandatory to do endometrial sampling– what are those risk factors and how do they increase the risk of endometrial cancer?
5. Medical Management can be broken down to 2 main categories. In 2 tables, write the common drugs used for the treatment of menorrhagia (include the intrauterine devices)
6. Explain the differences between a hysterectomy and endometrial ablation. Write in tabular form the benefits and risks associated with these 2 treatments.
7. In the assessment of dysmenorrhoea, what are the pivotal questions in the history and why?
8. What is the role of a therapeutic trial of medical treatment in primary dysmenorrhoea? What are the mainstays of medical treatments for primary dysmenorrhoea?

Suggested Reading

1. Abbott, J., Bowyer, L., & Finn, M. (2014). *Obstetrics and Gynaecology: an evidence-based guide (2nd ed).* Australia, Elsevier.
2. Edmonds, K. (ed). (2007) *Dewhurst's Textbook of Obstetrics & Gynaecology.* Blackwell Publishing. Chapter 38

ANSWERS

Question 1

Initial assessment in patients presenting with abnormal uterine bleeding

- How long have periods been abnormal?
- Is there flooding or passage of clots, of what size and number?
- How long do periods last and how often do they occur?
- What changes have taken place in the menstrual cycle
- Is there intermenstrual bleeding or post coital bleeding?
- Is there pelvic pain? Is it before or with menses? Is there pain with sexual intercourse?
- What contraception is being used?
- When was the last cervical screening test ?? Has it ever been abnormal?
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Differential diagnosis of AUB. PALM COIEN
Pregnancy
Structural — Polys, Adenomyosis, Leiomyoma, Malignancy
Systemic — Coagulation disorders, Ovulatory dysfunction, Iatrogenic, Endometrium, Not yet classified

Question 2

Menorrhagia is a complaint of heavy cyclical menstrual blood loss over several consecutive cycles without intermenstrual or post coital bleeding. In objective terms it is a blood loss greater than 80mls per period. Studies indicate 25% of premenopausal women experience AUB.
It is difficult to assess accurately the amount of blood loss in a period. A detailed history includes number of pads used, how soaked, double protection required, size and number of clots passed and episodes of accidents and flooding, does the woman need to stay at home?
There are various proposed methods for accurately measuring menstrual losses however they are only suitable for research purposes.

Question 3

A FBC/Ferritin should be performed in all women complaining of menorrhagia.
A co-test with HPV and LBC should be performed

Transvaginal sonography to measure endometrial thickness and diagnose polyps and leiomyomas and to exclude ovarian cysts

Question 4

The purpose of endometrial sampling in menorrhagia is to exclude or diagnose endometrial cancer or hyperplasia/atypia. It is recommended in women aged 40 and over and those with increased risk of endometrial malignancy. Women with polycystic ovarian syndrome, raised BMI and diabetes.

The following are risk factors for endometrial carcinoma:

- Obesity
- Nulliparity
- Late menopause
- Family history of ovary, breast, colon cancer
- Unopposed oestrogen therapy, ovarian theca cell tumour
- Pelvic irradiation
- Diabetes
- Polycystic ovary syndrome

An excess of oestrogen is common to all risk factors.

- In obese patients, androstenedione is converted to oestrone in adipose tissue.
- A late menopause is preceded by many anovulatory cycles resulting in a lack of progesterone to counter the endometrial proliferation mediated by oestrogens.
- Patients with polycystic ovary disease have anovulatory cycles.
- Ovarian theca cell tumours produce oestrogens.

Atypical endometrial hyperplasia carries an estimated 20% risk of endometrial cancer.
Taking the combined oral contraceptive pill during reproductive life is protective of the risk for endometrial cancer.

Question 5

Non – hormonal treatments for menorrhagia:

- NSAIDS
- Antifibrinolytics: tranexaminc acid

Hormonal Treatment for Menorrhagia:

- Cyclical progestogens: norethisterone, medroxyprogesterone acetate, dydrogesterone. Taken Day 5-26 of each cycle
- Intrauterine progestogens: Levonorgestrel intrauterine system (LNG) (Mirena)
- Combined oestrogen/progestogens: OCP
- HRT
- Other (Danazol, Gestrinone, GnRH analogues)

Question 6

Surgery may be necessary to deal with pelvic abnormalities such as polyps, fibroids, chronic pelvic inflammatory disease or endometriotic masses. Operations should be as conservative as possible in women who wish to retain their fertility. Surgery includes removal of endometrial polyps, endometrial ablation, myomectomy and hysterectomy.

Hysterectomy Complications

- Haemorrhage
- Fever, wound infection
- Bowel injury
- Urinary tract damage
- Death

Endometrial Ablation Complications

- Haemorrhage
- infection
- Perforation/ visceral damage
- Need for emergency surgery
- Not suitable for women who wish to be fertile. IUGR, Foetal death, placenta accretta

Question 7

Questions to ask in dysmenorrhoea

- How long have periods been painful?
- Has there been any change?
- When does the pain occur in relation to day of menstrual flow
- Is there pelvic pain at other times? Is there pain with sexual intercourse?
- Is there flooding or passage of clots?
- How long do periods last and how often do they occur?
- Is there any intermenstrual bleeding or post- coital bleeding?
- Is there a history of infertility or PID?
- What contraception is being used?
- Is cervical screening test up to date

Question 8

If the history is suggestive of primary dysmenorrhoea (typically first 1-2 days of period), then a therapeutic trial (of NSAIDs +/- OCP) may be embarked on before considering any examination and investigation especially in adolescents. If clinical evaluation raises suspicion of secondary dysmenorrhoea (typically pain experienced for 3-4 days of period or longer) transvaginal sonography or diagnostic laparoscopy should be considered (to exclude pathology such as PID or endometriosis).

The mainstays of treatment for primary dysmenorrhoea are NSAIDS and the COCP.