Heavy Periods (Menorrhagia)

Introduction

In a normal menstrual cycle a women losses and average of 40mls of blood over three to seven days: some women lose a lot more blood. Menorrhagia is the medical term for heavy or prolonged menstrual bleeding. Almost arbitrarily women who lose more than 80mls of blood during one period are said to have menorrhagia. It is difficult to be certain, how much blood is lost, but various research methods have been tried on the past, however each women needs to decide if her amount of menstrual loss is excessive for her own situation. Considerations are the ability to maintain iron stores as blood contains iron, the inconvenience of heavy periods, or whether or not heavy periods and blood loss impact upon other medical problems.

Causes of Menorrhagia

Broadly speaking, heavy periods may be caused by not ovulating every month (irregular or anovulation), abnormal growth in the uterus such as polyps or fibroids or conditions that increase bleeding throughout the body. These will be discussed below:

1. Anovulation

A normal menstrual cycle depends on a precise balance of oestrogen and progesterone. Oestrogen is the predominant hormone at the beginning of a menstrual cycle and produced by the ovaries. It causes growth of the lining of the uterus (endometrium). A corpus luteum cyst on the ovary then produces progesterone, after ovulation mid cycle. Progesterone causes a solidification of the endometrium and accumulation of glycogen with some changes in vascularity, in preparation for a coming pregnancy. The first half of the cycle is relatively constant in length. The time of ovulation and whether or not ovulation occurs affects the second half of the cycle and the timing overall. Women who ovulate irregularly or not at all tend to have heavy periods and are predisposed to overgrowth at the endometrium.

2. Growths in the Uterus

Non-cancerous or indeed cancerous growths in the uterus can cause heavy periods. The most common non-cancerous growths include endometrial polyps, which are a localized overgrowth of the lining of the uterus, fibroids (see separate document on fibroids on the website), and overall overgrowth of the lining of the uterus called endometrial hyperplasia, which in some cases can be a precursor to uterine cancer. There are several risk factors for this.

Bleeding tendency

Women with certain bleeding conditions or whoever takes certain medications that prolong bleeding time can also have heavy menstrual bleeding. Examples include Von Ville brands disease, Hemophilia, having a low platelet count, or taking anticoagulants ("blood thinners") such as Warfarin. Aspirin itself, although active against platelets does not cause heavy periods.

Symptoms

Women who soak through a pad or a tampon every one to three hours, have bleeding for more than seven days, need to use "double protection" (both pads and tampons) together, needing to change pads or tampons at night, flooding at night, passage of clots or those with iron deficiency anemia and all objectively be assessed to have excessively heavy periods. Note that many of things occur over a long period of time and often a women does note realise that she is iron deficient or suffering from excessively heavy periods.

Diagnosing the cause of Menorrhagia

It is necessary to perform a physical examination including a pelvic examination, speculum examination, Pap smear and swabs. I will usually also order blood tests, to explore the extent, consequences and complications of heavy periods. Blood tests will look for bleeding disorders, especially in younger women, blood count or hemoglobin, and iron stores. Note that serum iron per se is a short-term indicator or iron stores, more long term and reliable indicator is ferritin levels.

A pelvic ultrasound is also necessary to fully evaluate heavy or irregular menstrual bleeding, as this can assess the entire uterus, ovaries and give us an idea of other structures within the pelvis and abdomen.

Endometrial sampling (or curettage).

This is commonly called, and I don't like this term, a "clean out". Actually, a curette only samples the minority of the uterine lining and is a diagnostic procedure rather than a treatment per se. Certainly, in the setting of a recent or current miscarriage, a suction curettage can be therapeutic as it removes excessively thickened endometrial lining, and products of conception for diagnostic curette in the setting of menorrhagia, is hardly lastingly therapeutic. A biopsy of the lining of the uterus is necessary to exclude overgrowth or precancerous changes. This is, now preceded by hysteroscopy. Hysteroscopy involves the visual examination of the lining of the uterus and improves the liability of curettage (see other document, on this website, Diagnostic Hysteroscopy and Curettage).

Treatment of menorrhagia

Treatment is broadly divided into medical, surgical or no treatment at all. The treatment recommended is determined by the cause of the bleeding, your preferences, the need to prevent pregnancy or the desire to achieve a future pregnancy, and the desire to preserve fertility.

Medical Treatment of menorrhagia

1. Contraceptive Pill.

The OCP is an effective means of reducing menstrual bleeding when there is no physical cause for heavy bleeding present (i.e. dysfunctional uterine bleeding). The OCP can reduce period flow by around 50% and obviously has it advantage of concurrent contraception. This is achieved by the thinning the endometrium and subtle affects on the body's blood clotting system. I may be possible to take the OCP, without a break in order to avoid periods (so called tricycling). For practical purposes, this can only be achieved with monophasic or single dose pills such as Microgynon .

2. Mirena or Progesterone containing intrauterine devices.

The Mirena is one of the mist important break throughs in gynecological care in the last 20 years. There is no doubt, that Mirena IUCD's, have reduced the incidence of hysterectomy. A Mirena IUCD, can reduced menstrual flow by about 90%, and over the course of 12 months post insertion, around 30% of women experience no periods at all. This is achieved, by thinning the endometrium and reducing the blood flow ….endometrial endo-myometrium (there is separate document on this website, concerning Mirena's) Also see www.Mirena.com.

The World Health Organisation, publishes a list of criteria for the perfect contraceptive, and Mirena is the only device to satisfy all its requirements. Mirena IUCD's, can be inserted after exclusion of other pathologies, sometimes in the doctors room, but more likely under general anaesthetic in a hospital or day surgical facility. This is a technically superior way of inserting the Mirena IUCD as a curettage and complete assessment, maybe undertaken at the same time.

3. Implanon devices.

Implanon, or the progesterone containing subcutaneous rod is also effective in reducing menstrual flow. About the extent is on the Mirena device although the pattern of bleeding may remain disturbed. In practice this is a common reason for discontinuation of treatment.

4. Depo-Provera

Depo-Provera is injectable progesterone that is given on a three monthly basis. Again, it causes a rapid decrease in menstrual flow. Its side affects to …more than those with Mirena, return to fertility is must longer and side affects tend to be more severe. Is is a less practical option for the medium to long term compared to the OCP or Mirena.

5. Antifibrinolytic medications

The principal example is Cyklokapron or Tranexamic acid. These very subtly changed the balance of the body's coagulation system, in favour of clots forming rather clots dissolving. This can reduce menstrual flow by around 50%, similar to the combined OCP. A past history of deep venous thrombosis is not a contraindication however a current DVT is. Large doses needs to be taken, on approximately six hourly basis, this treatment can be effective but in reality can turn out to be quite inconvenient as many tablets need to be taken, and there is no overall modification of the underlying problem. Side effects can include headaches, muscle cramps or occasional abdominal pain.

6. Non steroidal anti-inflammatories (NSA's)

Ponstan or mefenamic acid is most commonly prescribed, non steroidal, it is specifically for the treatment of heavy periods. However, other non steroidals such as Nurofen such as Naprogesic may also be effective. These can reduce menstrual flow, by about 50%, are not expensive and have a few side effects. They may also reduce period pain, but the not contraceptives. These can be taken, in combination with any of the above treatments.

7. Progesterone Pills

The Progesterone contraceptive, Microlut is not an effective way of controlling periods as the dose is not high enough, however other progesterone's such as Provera (Medroxyprogesterone acetate) and Primolut (Norethisterone) are more effective. As described above, Progesterone is intrinsically vital to controlling periods. Taking either Norethisterone or Medroxyprogesterone acetate will soon put a halt to menstrual bleeding although the dose range is very wide. However, as sure as night follows day, on ceasing this medication a period will ensue. This is a normal physiological response.

Patient are often confused, about the length of time, for which oral progesterone tablets can be taken, In time, they may cause an effective thinning of the endometrium, which can in itself be useful but this may lead to break through bleeding or spotting. However, please note that as far as the endometrium goes no harm is done. The only contraindication to progesterone therapy is that of progesterone sensitive breast tumor. There is no effect on deep venous thrombosis risk.

Therefore, although progesterone tablets can be used in the short to control heavy bleeding, they are best taken in a cyclical fashion. This is generally between days five and 25 of the menstrual cycle. Generally speaking we would hope that during that week off, a normal sensible period ensues, although in practice I often find that the period at this time is especially heavy again, regular medication must be taken, and it often proves inconvenient in the long term.

Surgical treatment for menorrhagia

Just as in the medical treatment, the mode of surgical treatment depends on women's wishes and desires for future fertility and the tolerance of the potential risk for failure, Minor surgical procedures for menorrhagia have become much more frequent over the last 10 to 20 years and also more effective.

1. Endometrial Ablation

This is the term given to a surgical procedure that cauterizes the lining of the uterus. It is aimed to "burn" the endometrium down to its regenerative layer, thereby permanently reducing menstrual flow. Further notes on this procedure can be found on this website. Generally speaking the 30/30/10 rules applies. In 30% of women zero periods result. In another 30%, periods are extremely light, and a further 30%, periods are rendered normal, and in 10%, little or no effect is attained. In reality it is generally possible to predict the 10% of patients.

These ladies have large uteruses, fibroids or other structural reasons for heavy periods which can not readily be treated with endometrial ablation.

Endometrial ablations are typically done manually, using a rollerball resectascope device which is now extremely efficient so called second generation endometrial ablation devices which are much quicker than rollerball and arguably more effective. This best of these devices, according to current evidence, is the Novasure device. These have limited availability, in the public sector but are freely available in the private sector. The instrument itself, is disposable and expensive.

2. Hysterectomy

When done well, and for appropriate reasons, hysterectomy, have extremely high satisfaction rates. It is worth remembering, the despite the success of Mirena's, medical therapy, and endometrial ablations, it is still only a hysterectomy, which will guarantee complete cessation of menstrual flow on an enduring basis. Some women find this decision extremely easy, some find the decision to have a hysterectomy extremely hard and will try other conservative treatments first, before deciding for hysterectomy, if at all. The decision to proceed with hysterectomy rests entirely with the women. Further I am happy to proceed directly to hysterectomy, as a first line treatment for menorrhagia, in an appropriately informed patient as this procedure still has its place and has a very high satisfaction rate. When required, hysterectomy should be performed by either laparoscopic or vaginal method. There should be very few remaining indications for an abdominal hysterectomy.