Suppressing or Delaying Menstruation

Background

Menstrual suppression involves the use of various medications or devices to decrease the frequency and volume of normal menses or to achieve therapeutic amenorrhea. There are many circumstances when a woman may want or need to suppress or temporarily delay menstruation.[1,2] These reasons can be medical or simply due to personal preference. Some of the most common reasons include[1-4]:

- To reduce pain and discomfort (dysmenorrhea) associated with the menstrual cycle.
- To reduce pain (dysmenorrhea, dyspareunia, or pelvic pain) associated with endometriosis.
- To reduce abnormal uterine bleeding (including bleeding due to fibroids).
- To reduce bleeding in women with hemorrhagic diatheses.
- To reduce hormone withdrawal symptoms (nausea, vomiting, breast tenderness, bloating, mood changes) associated with combined hormonal contraceptive hormone-free intervals.
- To reduce the frequency of migraines and headaches associated with menstruation.
- To reduce vasomotor symptoms and problematic bleeding in menopausal women taking combined hormonal contraceptives in their hormone free interval.
- To reduce the burden of menstruation for women with disabilities or undergoing cancer treatment.
- Personal preference (upcoming vacation, wedding, academic examination, athletic event, etc.).

Medications Commonly Used to Suppress or Delay Menstruation:

Combined Hormonal Contraceptives: No single regimen/product has been recognized as being superior to others. All currently available ethinyl estradiol contraceptives (oral [monophasic or multiphasic], transdermal, or vaginal) can be used in a continuous or extended regimen.[3] The choice of monophasic or multiphasic oral contraceptive is often at the discretion of the prescriber.[3] The patch may be preferred for patients with gastrointestinal issues or for those with poor adherence to daily oral contraceptives. The vaginal ring can be used for one month before requiring replacement.[1] Unscheduled bleeding/spotting often occurs during the first few months of extended or continuous hormonal contraceptive use, but then resolves.[1-5]

Efficacy and Safety of Continuous or Extended Cycle Combined Hormonal Contraceptives: The efficacy and safety of menstrual suppression with continuous/extended cycle hormonal contraceptives have been supported by a number of studies and appear to be similar to cyclic use.[3,5,6] Some advantages of continuous or extended regimens of hormonal contraception include improved compliance, greater

satisfaction, fewer menstrual symptoms, and less menstruation-related absenteeism from work or school.[4-6] Although it is uncertain whether the contraceptive efficacy of the traditional regimen versus extended cycling differs, the greater suppression of follicular development that has been demonstrated with extending cycling suggests a theoretical advantage in favour of less likelihood of follicle development, thus lower risk of ovulation and possibly improved contraceptive efficacy.[3,5] Direct evidence for the long term safety of continuous or extended combined hormonal contraceptives is lacking, but if there is greater risk associated with this use, it is likely to be minimal.[3,4,6]

Progestin-Only Contraception: This category ostensibly only includes depot medroxyprogesterone (DMPA) as the progestin-only pill (norethindrone 0.35mg) induces amenorrhea in only ~10% of women (compared to 60-70% with DMPA) and is associated with more breakthrough/irregular bleeding upon initiation.[7] In regards to DMPA, reduction in estrogen levels during adolescence has been associated with a decrease in bone mineral density (BMD). Fortunately, studies suggest that this loss of BMD is transient and its recovery has been demonstrated in adult and adolescent patients after discontinuation.[1] DMPA is a good choice for inducing amenorrhea in patients in whom estrogen-containing contraceptives or LNG-releasing intrauterine system (IUS) is either contraindicated, causes additional health concerns, or is not desired by the patient. It is important to remember that return to fertility upon discontinuation of DMPA may be delayed compared to other methods.[1,7]

Levonorgestrel Intrauterine System (LNG-IUS): The LNG-IUS is indicated for control of heavy menstrual bleeding and long- acting reversible contraception. Menstrual blood loss is reduced by 85% in 3 months; rates of amenorrhea approach 50% in 6 months and continue to increase over time.[1]

Norethindrone[8-11]: This is an option to temporarily delay menstruation for women not already using hormonal contraception. Norethindrone has been used off-label at a dose of 5 mg three times a day starting three days before anticipated menstruation. It can be continued for up to 3-4 weeks. After stopping, menstruation will begin in about 2-3 days. Women should be aware this method should not be used regularly. It is important to be aware that taking these doses of norethindrone carries an increased risk of venous thromboembolism (VTE), since norethindrone is partially metabolized to ethinyl estradiol. This conversion is not important at low doses (e.g. 0.35 mg daily), but at these higher doses it is something that should be carefully considered. Because of this, higher doses of norethindrone should be used with caution in women who have a high risk or history of VTE.

Table 1: Regimens for Suppressing or Delaying Menstruation:[1,5,7-12]

Medication	Dosing	Amenorrhea	Advantages	Disadvantages
Suppression				
Combined Oral Contraceptives	Multiple formulations. Taken in an extended[a] or continuous[b] cycle	~70% at 1 year with continuous or extended cycle use	Long history and clinical experience with both cyclic and extended use	Daily adherence required, BTB is common, risk of VTE
Transdermal Combination Contraceptive	Used in an extended[a] or continuous[b] cycle	Similar to COC	Weekly adherence may be easier than daily adherence of COC	Skin irritation to patch, risk of VTE (similar to COC), reduced efficacy in patients ≥ 90kg
Vaginal Contraceptive Ring	Used in an extended[a] or continuous[b] cycle	Similar to COC	Monthly adherence may be easier than daily or weekly adherence	BTB, VTE risk
Depot Medroxy-progesterone (DMPA)	150 mg IM every 10-12 weeks	~60-70% at 12 months, continues to increase with duration of use	Administration schedule may improve adherence	BTB, progestin-related side effects (weight gain?), potential impact on BMD (>2 years?); delayed return of fertility
Levonorgestrel Intrauterine systems (IUS)	20 mcg/day (Mirena®) or 17.5 mcg/day (Kyleena®)	~50% at 1 year; ~60% eventually	Highest contraceptive efficacy (if desired)	Initial expense and insertion-related discomfort
Delaying				
Norethindrone	5 mg three times a day starting 3 days prior to anticipated menstruation onset	Efficacy for delaying menses varies among women	For women who are not already taking hormonal contraception/ do not wish to start. Will get regular period 2-3 days after cessation	Should not be used long term (up to 3-4 weeks), risk of VTE, nausea, headache, breast tenderness

BMD = bone mineral density; BTB= breakthrough bleeding; COC = combined oral contraceptive; IM= intramuscular; VTE= venous thromboembolism

[a]**Extended regimen**: using active hormone pills (one tablet taken daily), patches (new patch applied every week[13]), or vaginal ring (new ring inserted every 3 to 4 weeks*) continuously for often three, four or six month intervals followed by a hormone-free interval (typically 7 days) to experience a withdrawal bleed. Unscheduled bleeding generally decreases over time.[2]

[b]**Continuous regimen**: using active hormone pills (one tablet taken daily), patches (new patch applied every week[13]), or vaginal ring (new ring inserted every 3 to 4 weeks*) continuously without a hormone-free interval; eliminating all scheduled withdrawal bleeding.[2]

*For usual cyclical use, the manufacturer recommends removing every three weeks, though states contraceptive effectiveness is maintained for up to four weeks after insertion.[14]

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