TOOLS FOR PRACTICE #377 | November 12, 2024

How to slow the flow IV: Combined oral contraceptives

CLINICAL QUESTION

In premenopausal heavy menstrual bleeding due to benign etiology, do combined oral contraceptives (COC) improve patient outcomes?

BOTTOM LINE

About 80% of women on COC will see improvement in mean blood loss, compared to 40% on placebo. Additionally, their use of sanitary items is reduced by approximately half (compared to 20% for placebo), and hemoglobin improves. Levonorgestrel-containing intrauterine systems, however, are more effective.

EVIDENCE

- Three systematic reviews of randomized, controlled trials (RCTs) of COCs in the past 5 years.[1-3] Focusing on most relevant.[1] Results statistically different unless indicated.
- Versus placebo (2 industry-sponsored RCTs, 363 patients).[1] After 6 months:
  - Patient-assessed improvement in mean blood loss: 79% versus 42% (placebo).[1]
  - Proportion with “response” (“menstrual normality” returns): 42% versus 3% (placebo).[1]
  - Hemoglobin increase from baseline: ~6g/L versus ~1g/L (placebo).[4,5]
  - Mean blood loss reduced by ~70% versus ~20% (placebo).[4,5]
  - Sanitary item reduction: ~45% versus 20% (placebo).[4,5]

    - Quality of life improvement: 56% versus ~30% (placebo).[1]
- Versus NSAIDs (1 RCT, 29 participants).[1] At 2 months:
    - Mean blood loss: No difference.
- Versus levonorgestrel-containing intrauterine devices (IUD) (2 RCTs, 151 participants).[1] At 12 months:
    - Treatment "success" (certain score on pictorial blood-loss assessment or no alternative treatment required): 60% versus 87% (IUD).[1]
    - Mean blood loss reduced by ~35% versus ~85% (IUD).[6]
    - Patient satisfaction: No difference.[1]
    - Hemoglobin change: Inconsistent.[6,7]
    - Quality of life: Inconsistent.
    - Adverse effects: No difference.
- Versus vaginal ring (2 RCTs).[1] At 6 months:
    - Response, mean blood loss, patient satisfaction, hemoglobin: All no difference.
- New pragmatic RCT, 62 women IUD or COC.[8] At 12 months:
    - No difference in menorrhagia-related quality of life.
- Other systematic reviews found similar.[2,3]
- Limitations: Small number of participants, possible regression to the mean, various COC products studied, blinding not always performed, high drop-outs, some calculated means not reproducible by TFP authors.

CONTEXT

- Contraindications to COC include: Previous thromboembolism/cardiovascular disease/breast cancer, uncontrolled hypertension, smoking at age ≥35, migraine with aura, active liver/renal disease.[9]
- COCs may increase venous thromboembolism risk by 1/1250 women/year.[10]
- IUDs: most effective medication for reducing blood loss, likely at least as good as endometrial ablation.[11]

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