May 19, 2011

Evidence Based Management of Uterine Leiomyoma (fibroids)

Clinical specialty: Obstetrics and Gynecology
Intended users: Physicians and students
Source of Evidence: The Cochrane Library and DARE

JC Objective

To discuss the evidence for the management of uterine leiomyoma (fibroids)

Recommendations

History

- The majority of small myomas & some large ones are accidentally discovered during routine examination. The nearer the myoma to the endometrial cavity the most likely it is to cause symptoms especially menstrual symptoms
- ***Heavy menstrual bleeding (menorrhagia)*** heaviest on the second & third days (flooding).
- Irregular uterine bleeding (metrorrhagia)
- Pelviabdominal swelling
- subfertility

Examination

- general examination: anemia
- abdominal examination: pelviabdominal mass
- PV examination:
  1. ***enlarged uterus***: either asymmetrical or symmetrical
  2. mass in Douglas pouch, or in utervesical pouch,
  3. Broad ligamentary or adnexal mass
  4. polyp protruding from the cervix.

Investigations

- CBC
- TV or TA ultrasound
- Hysteroscopy or laparoscopy
- Endometrial biopsy in cases of metrorrhagia

Ashraf Fawzy Nabhan

Intervention

- General:
  1. correct iron deficiency anemia
  2. counsel for operative treatment
- Specific:
  1. ***no treatment***: if asymptomatic
     a. No data to support hysterectomy or myomectomy in women with asymptomatic LM, but there is clear evidence that both are associated with the risk of complications.
  2. ***Hysterectomy***: is the only definitive therapy.
     a. Based on age, fertility requirement, and wish to spare the uterus
     b. Route: Vaginal or abdominal
     c. If abdominal: total or subtotal techniques may be used
  3. ***Uterus sparing interventions***:

     - *All uterus-sparing treatments for symptomatic LM leave some risk of **persistent or recurrent** LM resulting in the need for additional therapy.*
     - *Given the high incidence of LM, it is possible that some LM detected after uterus-sparing treatment represent **new** lesions that would have developed with or without the* intervention.

     a. Myomectomy:
        (1) indications: a young patient, wish to retain fertility, wish to spare the uterus (refusing hysterectomy)
        (2) operative:
            (a) to reduce blood loss:
                (i) Evidence is limited from a few RCTs that misoprostol, vasopressin, bupivacaine plus epinephrine, tranexamic acid, tourniquet, and mesna (mercaptoethane sulfonate) may reduce bleeding during myomectomy.
                (ii) There is no evidence that morcellation or laser dissection have an effect on intraoperative blood loss.
            (b) to decrease adhesions: interceed (oxidized regenerated cellulose) or Goretex surgical membrane.
        (3) postoperative complications:
            (a) immediate: (as compared with hysterectomy) more hemorrhage ??
            (b) remote:
                (i) persistent or recurrent menorrhagia
                (ii) persistent infertility
                (iii) recurrent, persistent or new LM
                (iv) higher CS rate

b. Laparoscopic myomectomy: ***pedunculated subserous myomas*** are resected by coagulating the base using thermocoagulation or cautery. The myoma is transected from its base & morcellated or cut if necessary.
   (1) insufficient evidence of a difference in clinical pregnancy rate and live birth rate when fibroids were removed via laparotomy or laparoscopy
   (2) non fertility benefits of removal via laparoscopy including shorter hospital stay, less febrile illness and a smaller drop in pre-operative HB (compared to laparotomy)
c. hysteroscopic resection of a ***single submucous polyp***.
   (1) a ***resectoscope***: by progressive shaving.
   (2) ***ND:YAG laser***.
d. Polypectomy in single submucous polyp
e. Hormonal
   (1) GnRH analogues
      (a) As a primary conservative therapy: insufficient evidence
      (b) Adjuvant: for 4 months before surgery (hysterectomy or myomectomy)
         (i) correction of pre-operative iron deficiency anemia, if present,
         (ii) uterine volume, uterine size and fibroid volume were all reduced.
         (iii) reduce intra-operative blood loss.
         (iv) a mid-line vertical incision can be avoided
         (v) a vaginal route for hysterectomy is more likely
         (vi) reduced operating time
         (vii) Duration of hospital stay was also reduced.
   (2) Insufficient evidence for
      (a) Danazol or gestrinone
      (b) SERMs or tibolone
      (c) Antiprogesterone
f. Uterine artery Embolization
   (1) improves LM-related symptoms e.g. menstrual loss was 85% in UAE
   (2) decreases mean LM volume by 30 to 46%.
   (3) reduces length of hospital stay compared to either hysterectomy or myomectomy.
   (4) Is associated with a higher rate of minor complications:
      (a) vaginal discharge,
      (b) post puncture hematoma
      (c) post embolization syndrome (pain, fever, nausea, vomiting),
      (d) higher readmission rates after discharge
   (5) elevated FSH levels post UAE indicates possible ovarian dysfunction.
g. Myolysis:
   (1) Cryotherapy
   (2) Electrocautery
   (3) Laser