

Updates in Fibroid Management

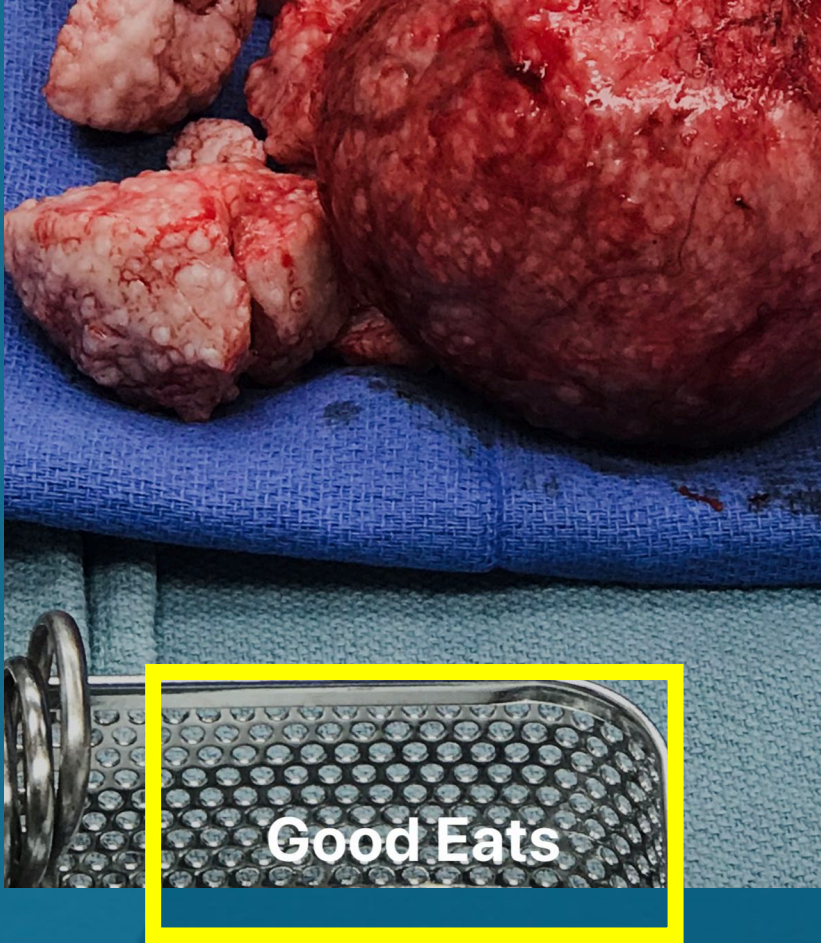
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Minimally Invasive Gynecologic Surgery



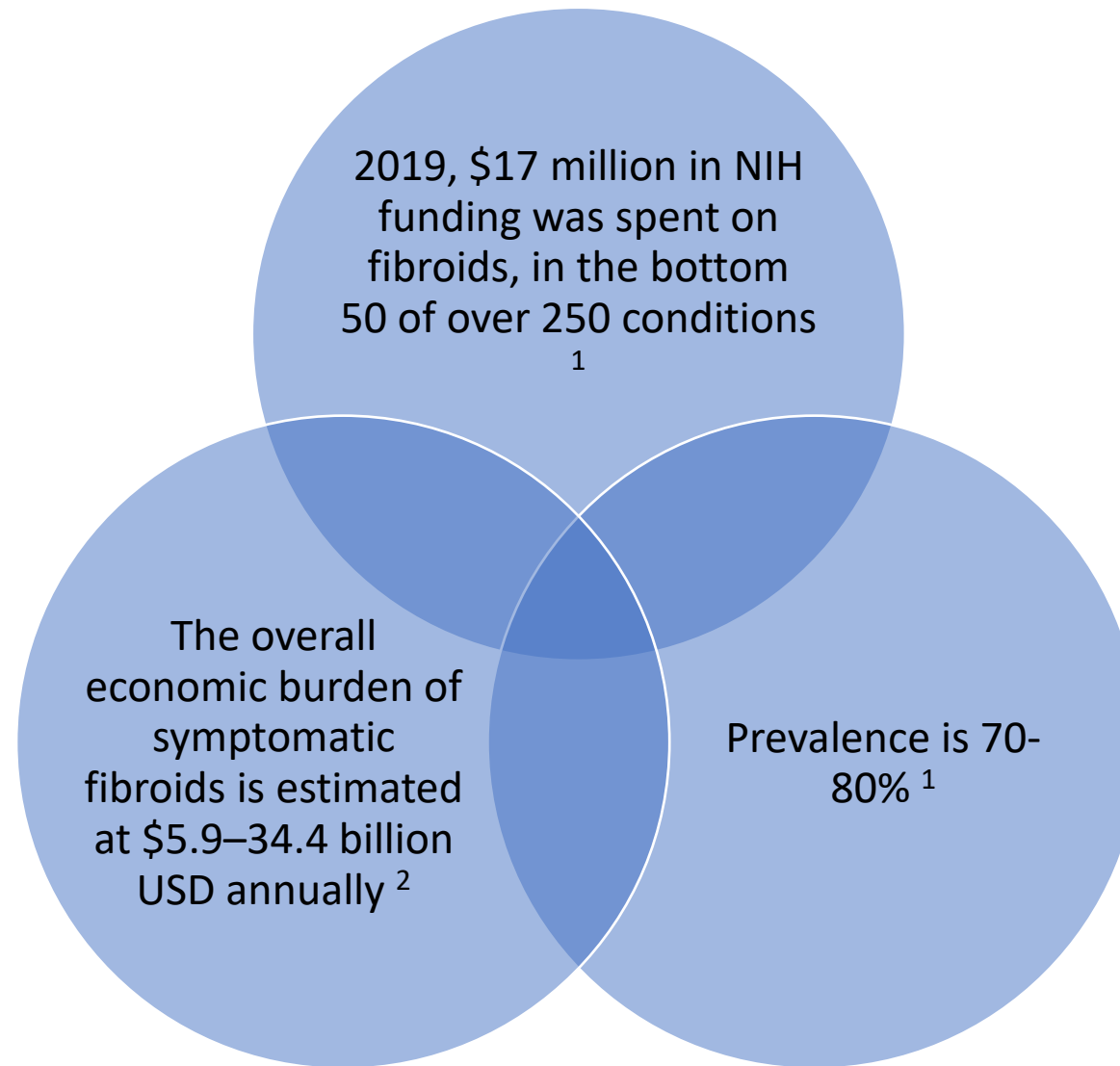
What are we going to learn?



- Basic science updates
- Therapy for bleeding
- Therapy for bulk symptoms
- Lifestyle risk and protective factors
- Things that do not work

Album and title suggested to me by google photos on my phone

Preaching to the choir....



1. Giuliani E, As-Sanie S, Marsh EE. Epidemiology and management of uterine fibroids. *Int J Gynaecol Obstet*. 2020 Apr;149(1):3-9. doi: 10.1002/ijgo.13102. Epub 2020 Feb 17. PMID: 31960950.
2. Marsh EE. Burden, Prevalence, and Treatment of Uterine Fibroids: A Survey of U.S. Women. *J Womens Health (Larchmt)*. 2018 Nov;27(11):1359-1367. doi: 10.1089/jwh.2018.7076. Epub 2018 Sep 19. PMID: 30230950; PMCID: PMC6247381.

Good News

- In 2024, the National Institutes of Health (NIH) (specifically the Eunice Kennedy Shriver National Institute of Child Health and Human Development - NICHD) invested approximately \$15 million in two new Specialized Centers for Research on Health Disparities in Uterine Leiomyoma (fibroids).



Advances in leiomyoma basic science

West African ancestry correlated with risk for a single fibroid, East African ancestry correlated with risk for multiple fibroids, and Northern European ancestry protected against multiple fibroids.

One NICHD-funded study found that phthalate exposure may trigger the growth of fibroid cells and delay the rate at which they die.

NICHD-supported researchers found that women with fibroids who scored high on questionnaires about stress had high levels of microRNAs linked with tumor growth in their uterine muscle.

Other NICHD-funded research discovered that the green-tea compound epigallocatechin gallate (EGCG) reduced levels of substances that promote cell division and proteins that cause the tumors' fibrous contents.

NICHD-funded researchers created a new method that shrinks fibroids non-invasively in mice by encasing a tumor-killing drug in nano-sized spheres, using the bloodstream to deliver the spheres directly to the fibroid.

Case 1:

29yo presents with complaint of heavy periods for 5 years.

PMHx: HTN, obesity

PSHx: tubal ligation

Initial work-up

- History and physical
- Pap
- TSH, HgA1c, CBC
- TVUS
- Endometrial biopsy
- Possible MRI for consideration of UAE, myomectomy

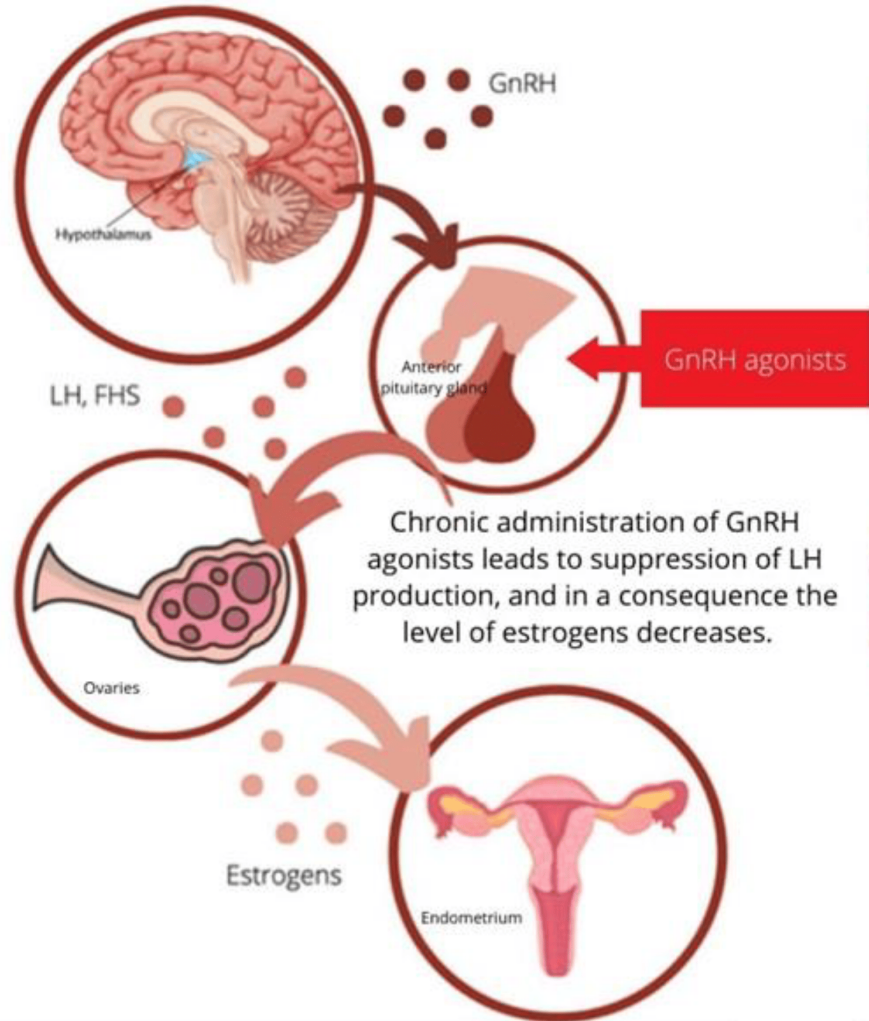


Decreasing bleeding

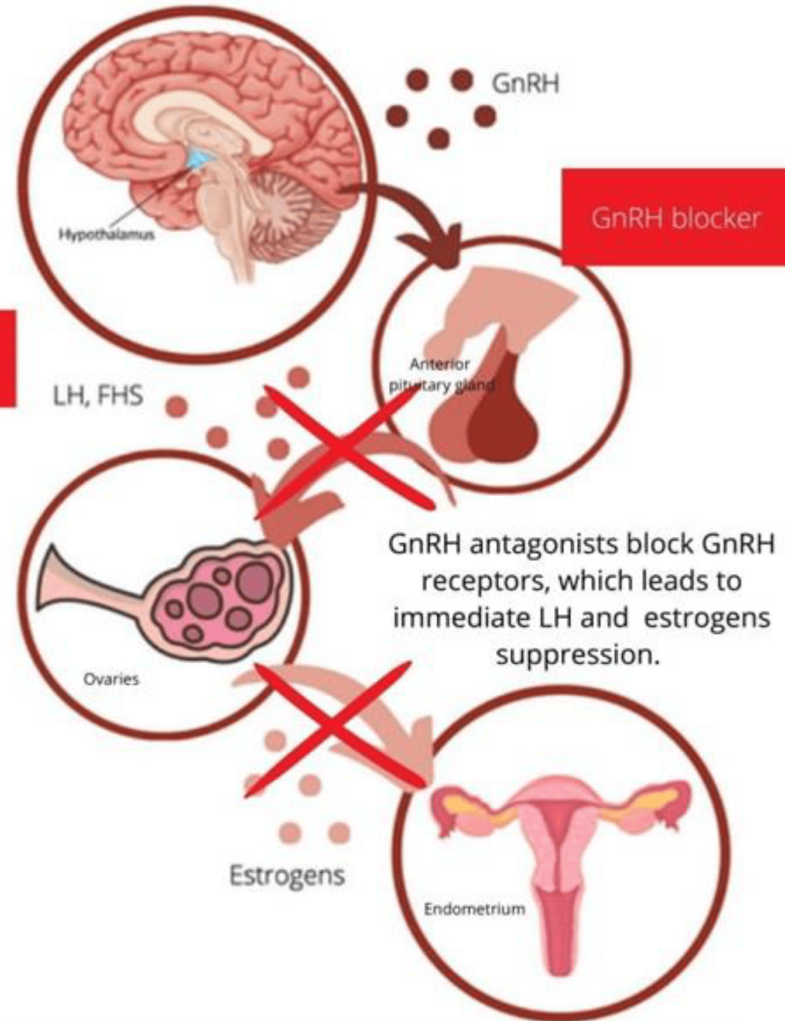
- Leuprolide acetate
- OCPs
- GnRH antagonists
- Tranexamic acid
- Progesterone
- Hysterectomy
- UAE
- Sometimes, myomectomy



GnRH agonists



GnRH antagonists



GnRH antagonists

- GnRH antagonist-> ↓ FSH, LH
- Back up non-hormonal contraception recommended
- Limited to 24 months due to risk of bone loss which may be irreversible
- Baseline and periodic DEXA recommended
- Relugolix: Most common adverse reactions (>3%) vasomotor symptoms, AUB, alopecia, and decreased libido
- Elagolix: Most common adverse reaction (>5%) in clinical trials were hot flashes, headache, fatigue, metrorrhagia.

Elagolix

- One capsule (elagolix 300 mg, estradiol 1 mg, norethindrone acetate 0.5 mg) in the morning and one capsule (elagolix 300 mg) in the evening for up to 24 months.
- FDA approved for treatment of HMB associated with fibroids 5/2020



Relugolix

- Relugolix 40mg, estradiol 1mg, and norethindrone 0.5mg once daily
- FDA approved for treatment of HMB associated with fibroids in 2021
- Warnings: hx of VTE or thromboembolic disorder, over 35+ smoking, uncontrolled HTN, pregnancy, osteoporosis, hormone sensitive malignancies, hepatic impairment, undiagnosed AUB, mood disorders

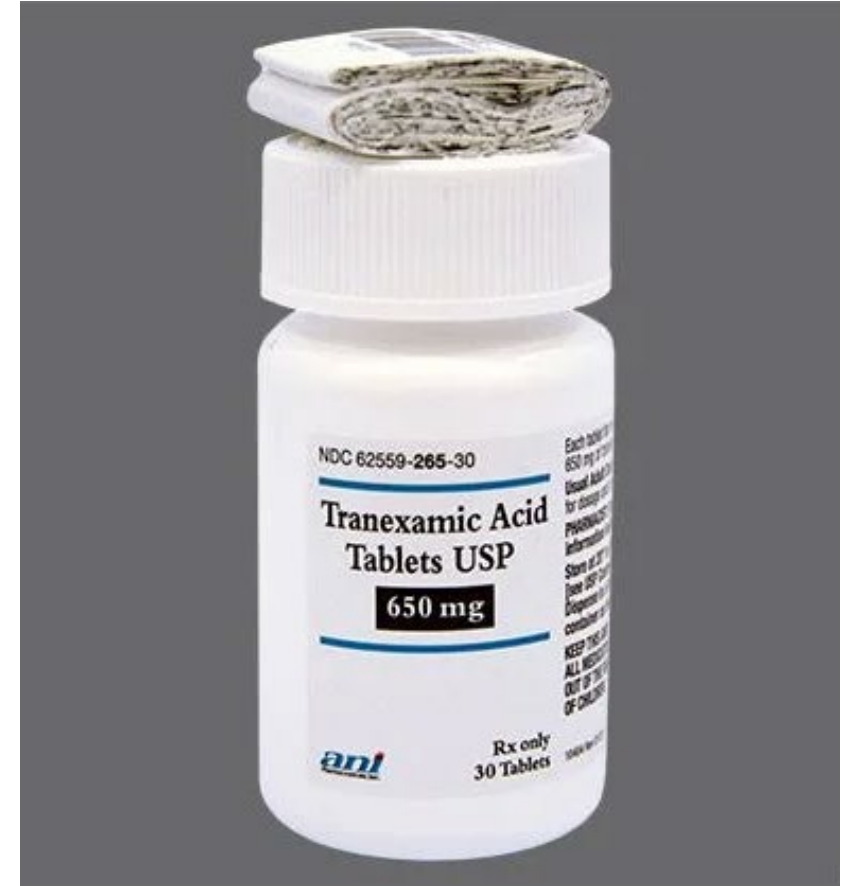


Tranexamic acid

TXA (Lysteda)

Anti-fibrinolytic

FDA approved
2009 for
treatment of HMB.



Case 2:

42yo presents with complaint of flank pain x 3 months.

PMHx: asthma

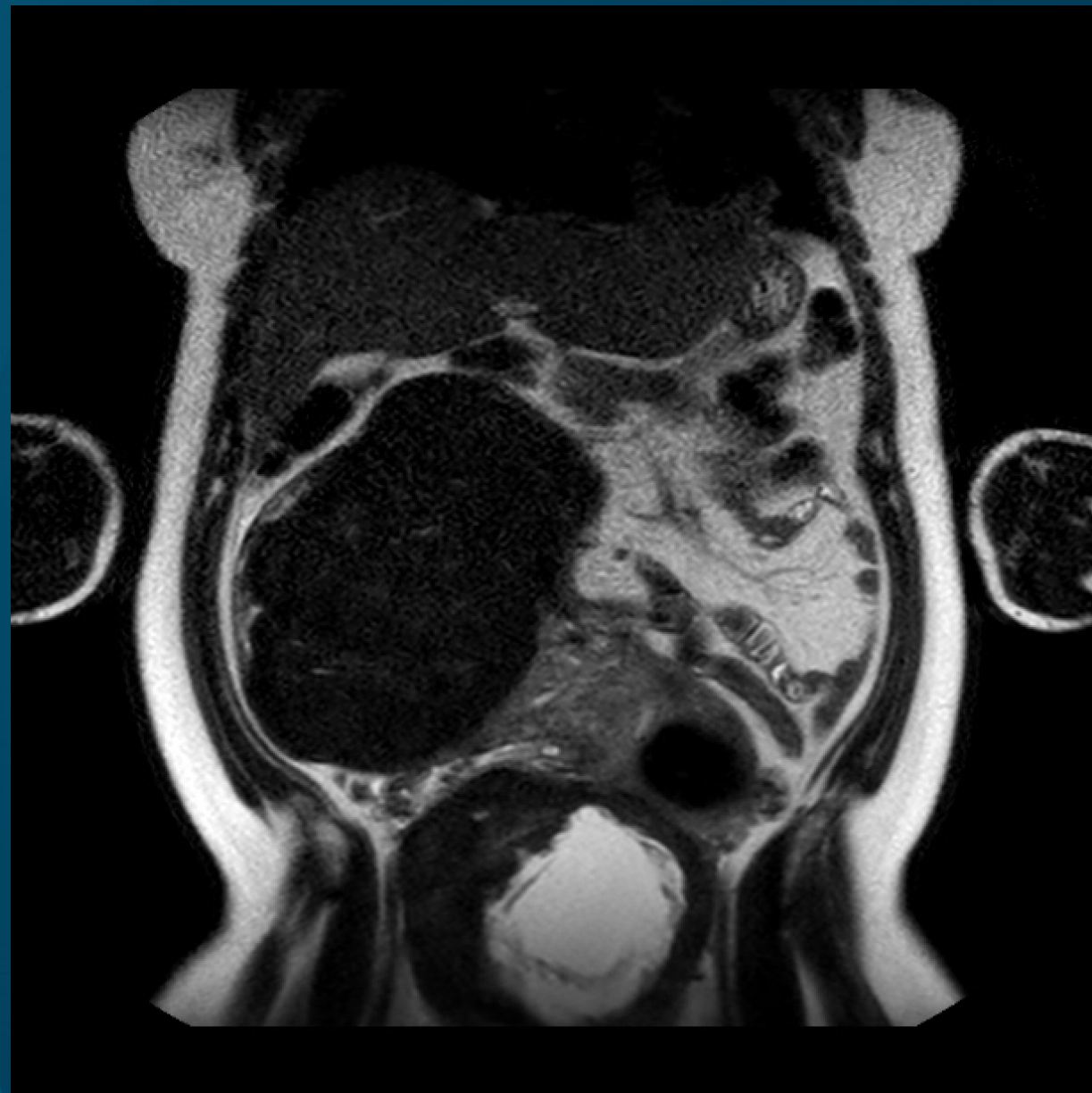
PSHx: LSC CCY

PObHx: G0

PGynHx: Regular, normal periods

MRI:

Enlarged fibroid uterus causing right
ureteral obstruction



Options for decreasing volume

- Leuprolide acetate
- GnRH antagonists
- Uterine artery embolization
- Myomectomy
 - HSC, LSC, abdominal
- Hysterectomy
 - LSC
 - Abdominal
 - Vaginal
 - VNOTES



Case 3:

37yo with multifibroid uterus who desires fertility presents for post-op visit after uncomplicated abdominal myomectomy with routine recovery

“What can I do to keep my fibroids from coming back?”



What might work?

Vitamin D

- Systematic review of 89 studies
- Fourteen clinical studies (n = 3535 participants) found an inverse correlation between serum vitamin D level and presence of fibroids.
- Five clinical studies (n = 472 patients) evaluated treatment of fibroids with vitamin D.
 - Four of five studies showed vitamin D significantly inhibited fibroid growth.
 - One pilot study (n = 109 patients) of vitamin D for secondary prevention of fibroids demonstrated smaller recurrent fibroids in the treated group.



Alcohol

Original Research

ajog.org

GYNECOLOGY

Alcohol consumption and the risk of new-onset uterine leiomyomas: a nationwide population-based study in 2.5 million Korean women aged 20 to 39 years

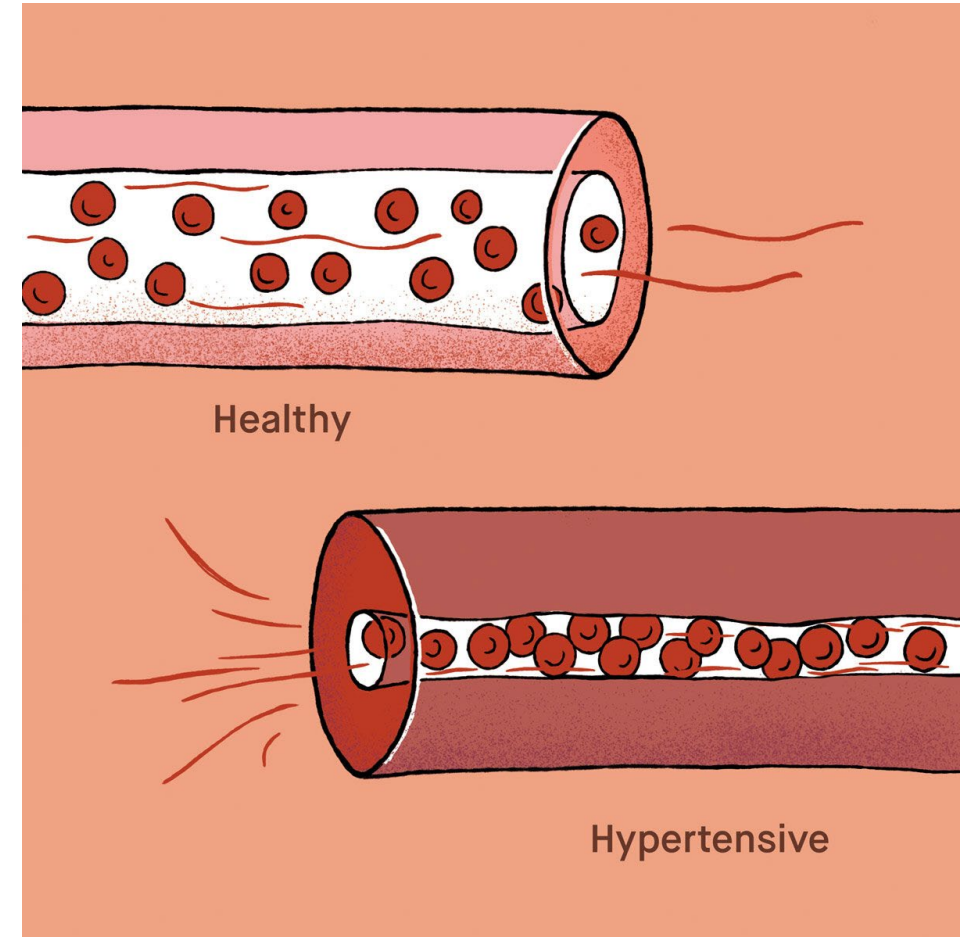


Sunmie Kim, MD, PhD; Kyungdo Han, PhD; Su-Yeon Choi, MD, PhD; Sun Young Yang, MD, PhD; Seung Ho Choi, MD, PhD; Jeong Yoon Yim, MD, PhD; Jin Ju Kim, MD, PhD; Min-Jeong Kim, MD



Hypertension

- Long observed to be coincident, but causality not established.
- Nested case-control study in an insurance claims database showed a significant protective benefit of using ACE-I on future fibroid growth.



Case 4:

25yo with a family history of fibroids presents for an annual exam.

- PGynHx: CIN 2 s/p LEEP
- PMHx: hypothyroidism
- “I’m taking these drops to prevent fibroids, which ones do you think are the best brand?”

What doesn't work?

What % of patients using CAM for fibroids?

47%



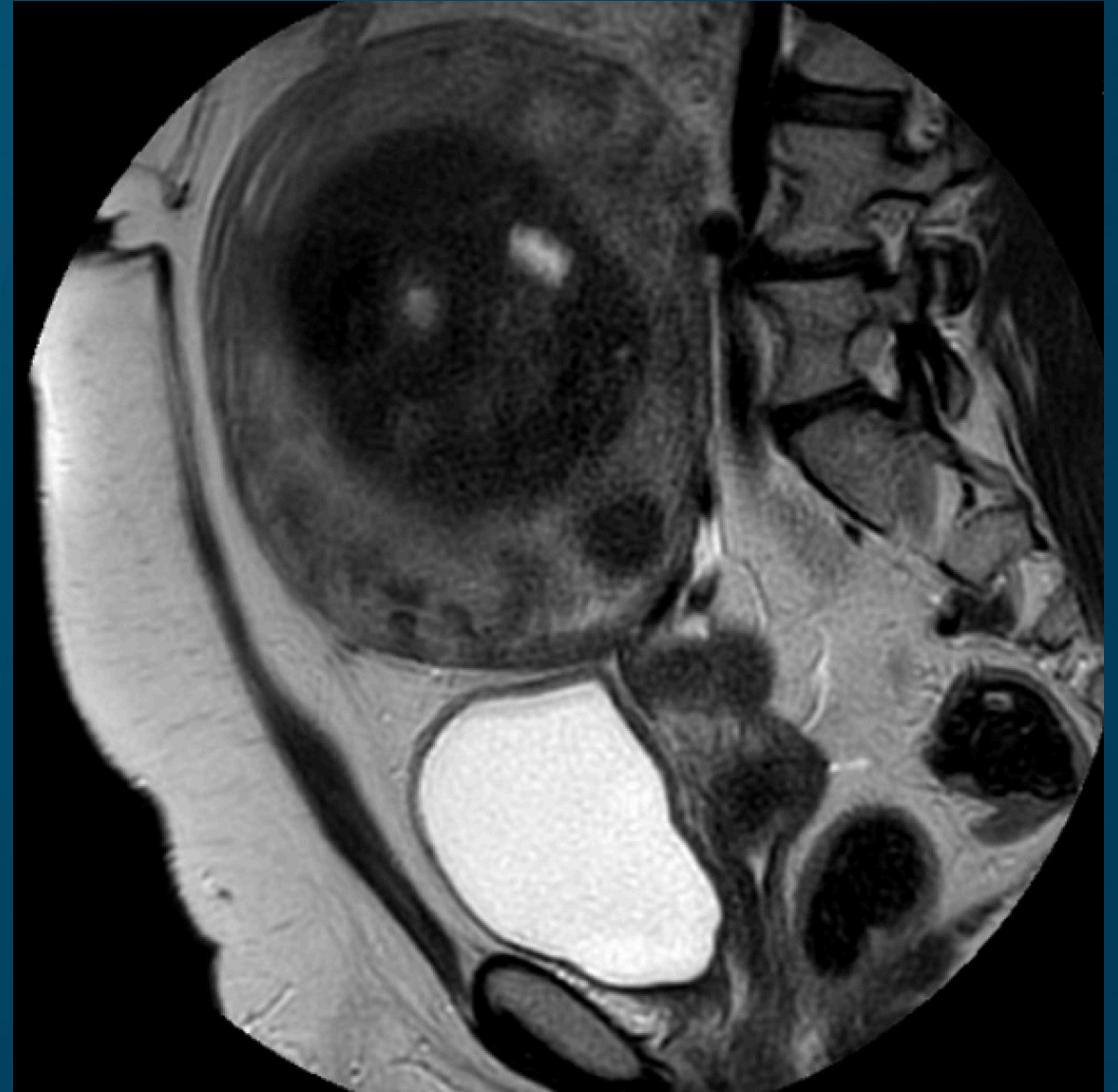
Case 5:

44yo presents with AUB-L.

PMHx: fibromyalgia

PSHx: hernia repair

“I’ve changed my diet and stopped eating soy and dairy but my bleeding hasn’t improved.”



Dietary modifications

| Cereal | | None |
|---------------------|--|----------------|
| Fruit and vegetable | | Protective |
| Dairy | | Equivocal |
| Soy | | Equivocal |
| Green tea | | Equivocal |
| Vitamin D | | Protective |
| Vitamin C | | No association |
| Vitamin A | | Equivocal |
| Vitamin E | | No association |

Case 6:

36yo presents with incidental finding of 2cm intramural fibroid noted on CT scan for nephrolithiasis.

PMHx: asthma

PSHx: LSC CCY

PObHx: G0

PGynHx: Regular, normal periods

She chooses expectant management and desires to know recommend surveillance

Surveillance

- Establish stability with repeat imaging after diagnosis
- Annual exam
 - Intervene earlier if symptoms change



