

## The relationship between the menstrual cycle and the lower gastrointestinal system

Pathology report

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The female reproductive system and its menstrual cycle is often studied and explained in the domain of the endocrine system. As we know in holistic medicine, body systems are fundamentally interrelated. In my own journey of healing extreme intestinal discomfort at the time of menses, it has become important to look at the interrelationship between the female reproductive system and intestinal activity. In this paper, I will investigate the effects that the menstrual cycle has on the lower gastrointestinal system. I will review the two systems, identify how and when they interact and create intestinal distress, and present options for balancing and healing.

### Systems overview:

The hormone chain of communication begins in the hypothalamus and goes to the pituitary where follicle stimulating hormone (FSH) and luteinizing hormone (LH) are secreted. These two stimulate the ovaries to produce the two main female reproductive hormones, estrogen and progesterone, respectively. The first approximately fourteen days of the cycle is estrogen dominated. When estrogen peaks, ovulation occurs, and the luteal phase begins. The luteal phase is dominated by progesterone.

The lower gastrointestinal system includes the stomach, duodenum, large intestine and colon. The small intestine sorts the pure and impure, clarifies and filters. Energetically, problems in the small intestine can relate to difficulty discerning between choices. Some people take in everything so as not to have to choose. The small intestine energetically helps us assimilate our life experiences.

In large intestine, water is absorbed as the feces travels through. Also, B vitamins, Vitamin K and electrolytes are synthesized. Microflora are abundant in the large intestine, and there is a great quantity of lymph tissue. If there is stagnation in the large intestine, substances in the fecal matter that are intended for excretion can be reabsorbed into the body. Energetically, large intestine imbalances can be related to pack rat energy or to holding on to too much (Swiecicki, lecture).

Interrelationships:

In female-bodied people, there is an important interrelationship between the levels of reproductive hormones and the behavior of the intestinal tract. Progesterone is known to delay gastric emptying and cause constipation (Cheung, 13). During the luteal phase, women can tend to excrete hard stools and have delayed transit time. At the time of menses, stools are looser and more frequent (Jackson et al). To investigate this pattern and understand how to rebalance when the related symptoms are causing discomfort, literature about healing irritable bowel syndrome (IBS) becomes valuable.

Irritable bowel syndrome is a family of symptoms, dominated by a tendency to alternate between constipation and diarrhea. While someone may not have IBS for the whole month, they may have symptoms at one part of the month, so it is useful to study the reasons, patterns and treatment as outlined by IBS experts who have thoroughly researched the interrelationship between the female reproductive system and the bowels.

IBS occurs in more than two times as many females than males, and tends to follow a cyclical pattern with aggravation pronounced during the progesterone-dominated phase of their menstrual cycle. During this luteal phase, a common symptom for people with IBS is constipation with straining, and the frequent passage of hard stools. At the end of the luteal phase, progesterone levels suddenly drop. Estrogen will begin to build at the onset of menses. In contrast with progesterone, estrogen has not been associated with the exacerbation of IBS symptoms (Cheung, 14).

In one study, high levels of LH (responsible for triggering progesterone production in ovaries) were found in females with IBS. In that study, drugs that lowered LH levels, and consequently suppressed progesterone production, resulted in improved IBS symptoms<sup>1</sup>. The cycling symptoms of IBS and PMS involve increased bloating and constipation one week before menses and looser bowel movements during menses (Cheung, 14).

It may be helpful to contextualize intestinal pain at menses in this IBS investigation. To be able to design treatment, we will then need to understand the

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<sup>1</sup> Conversely, in male bodied people, LH makes testosterone and high levels of LH tends to be protective from IBS symptoms.

possible causes of the IBS behavior. One cause can be an overgrowth of bacteria in the small intestine, an area that is normally relatively free of bacteria. This can cause excess gas, bloating, abdominal distension and pain, and altered gut motility. This overgrowth in bacteria can be caused by decreased gastric acid secretion, decreased bile flow, and decreased pancreatic enzymes<sup>2</sup> with resulting undigested and unabsorbed carbohydrates in the small intestine and colon. The undigested carbohydrates can cause excess fermentation that encourages bacterial growth, which then produces an abundance of gas and short-chain organic acids (i.e. lactic acid). These acids can damage the stomach lining of the intestines and further cause poor carbohydrate absorption. Meanwhile, the putrefaction of stagnant proteins in the small intestine produces substances called vasoactive amines, which can affect the intestinal muscles. Abdominal pain is caused by mini-spasms from the buildup of gas in the intestines (Cheung, 15).

In Traditional Chinese Medicine, another layer of explanation is offered about stool activity and the menstrual cycle. Depending on the constitution, the constipation-diarrhea cycle may appear. In one TCM reference, a relevant set of imbalances appears: watery stools accompanied by stomach distention, fullness, discomfort that is worse in the afternoon, fatigued spirit, lack of strength... after the period ends, the stools improve” (Kurtz, 1). Treatment involves boosting the qi, fortifying the spleen, and regulating the menses.

PMS symptoms can be more pronounced in women with deficient livers (Fischer, lecture). That these symptoms can include change abdominal discomfort and changes in gut motility is relevant to this discussion. Indeed, in a Japanese study on the subject, women who tended to be more constipated showed more dramatic changes in bowel activity before and at the time of menses (Fukuda, et al.).

#### Allopathic Treatment:

Ibuprofen or birth control pills are often given to people with menstrual pain. Antacids, Tylenol and sometimes aspirin or anti-inflammatory drugs can worsen some types of abdominal pain (Cheung, 101). Ibuprofen is contraindicated with IBS

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<sup>2</sup> A decrease in pancreatic enzymes causes poor absorption of carbohydrates, fats, proteins.

(wikipedia.org). In this situation, allopathic treatment focuses on suppressing the symptoms without addressing the underlying imbalance.

#### Holistic Treatment:

- Essential Oils -- rose geranium, chamomile, neroli, thyme, tea tree, lavender, peppermint, ginger. Put into a carrier oil and rub on abdominal area when there is abdominal pain.
- Diet: remove food allergens, beginning with dairy and wheat. Increase fiber and water intake to decrease intestinal transit time and to increase overall hormone excretion rates through urine and bowel movements (Greenlee, et al).
- Supplements
  - Increase calcium-magnesium supplements, especially in luteal phase. Calcium is responsible for smooth muscle contraction. Sugar makes you excrete calcium through urine.
  - Probiotics, as supplements or as fermented foods
- Additional treatment for acute pain: use a hot water bottle, or a warm bath with lavender EO.

Herbal Actions: To do hormone balancing, and to reduce IBS symptoms. Herbal actions for treating IBS symptoms include (for both tonic and acute formulas): anti-inflammatory, antispasmodic. If stress related: nervine, adaptogen and a bitter (Swiecicki, lecture).

- Adaptogens – if the imbalance is stress-related
- Anti-inflammatory herbs -- in acute formula
  - Kava
  - Nuphar – astringent to the colon, cools heat in the colon if there is diarrhea (which is an inflammatory condition). Nuphar also cools reproductive excess (Fischer, lecture).
- Anti-spasmodic herbs – in acute formula
  - Ginger
  - Kava

- Chamomile
- Carminatives
  - Fennel
  - Chamomile
  - Ginger
- Digestive bitters – in tonic formula, to increase bile production and overall excretion of hormones and toxins.
  - Taraxacum root – increases rate at which endogenous hormone metabolites are excreted.
  - Rheum – warming bitter
  - Angelica – warming bitter
- Female Reproductive Tonic herbs: estrogenic herbs (appropriate if the person has a progesterone-dominant cycle)
  - Dong Quai – warming, reproductive tonic, moisturizing, can relieve constipation, clears liver stagnation, great for women with low estrogen (Fischer, lecture).
  - Black Cohosh – cooling, anti-spasmodic, opens the heart
  - Mitchella – cooling
  - Vitex -- has a normalizing effect by normalizing secretions to the ovaries, but it is progesteronic in effect. It may be useful to include it in a formula for the first two weeks of a cycle, then phase it out in favor of an estrogenic herb during the luteal phase.
- Hepatic herbs – as a tonic formula
  - Liver health is key to proper production and processing of hormones. Supporting healthy liver function can help with hormone balancing. Liver herbs can neutralize liver toxins, reduce and repair liver damage, act as antioxidants, and increase beneficial liver enzymes. A liver cleansing diet or herbal formula can help lessen PMS symptoms.
  - Milk thistle – heals the liver so that it can detoxify more effectively! (Greenlee, et al).

- Bitters (see above)
- Lymphatic herbs – in a tonic formula. Bloating is an indicator for lymphatics
  - Red root – affinity with the trunk of the body and the pelvic floor.
  - Ocotillo – “ “
- Nervines – if the imbalance is stress-related, use a nervine with affinity to the gut
  - Chamomile
  - Melissa
  - Catnip
- Warming CVS stimulants
  - Ginger
  - Cinnamon
  - Prickly Ash

Sample Bitters Formula – before meals, all month long

0.5 Taraxacum

1 Angelica

0.5 Black Pepper

1 Chamomile

Sample Bitters Formula #2 (Fischer, lecture)

2 Rheum -- used a lot during eclectic times. Fabulous plant. Warming bitter. Not so over-the-top bitter that makes ppl nauseous.

½ Cinnamon -- curb sugar cravings, good carminative

½ Peppermint -- anesthetizes tissue (quiet the nerve firing in the gut). Peppermint E.O. is used in IBS which stops the pain in the tissue.

Sample Acute Formula #1 – take starting day before menses

1 Fennel – carminative, antispasmodic, anti-inflammatory, galactagogue, hepatic

1 Chamomile – nervine, anti-spasmodic, carminative, anti-inflammatory, bitter

1 Passionflower – nervine, anti-spasmodic

1 Ginger – warming stimulant, anti-emetic, carminative, anti-spasmodic

1 Kava – antispasmodic, anti-inflammatory

1/2 Peppermint – carminative, anti-inflammatory, antispasmodic, antiemetic, nervine

#### Sample Constitutional Formula

##### Follicular Phase

2 Eleuthero

2 Vitex

1 Red Root

1 Rheum

1 Prickly Ash

##### Luteal Phase

2 Eleuthero

1 Dong Quai

1 Red Root

1 Rheum

1 Prickly Ash

#### Bibliography

Cheung, Theresa. The IBS Healing Plan: Natural Ways to Beat Your Symptoms. Hunter House, Inc. Publishers. London, 2008.

Fischer, Pam. Lectures 4/08-11/08. Berkeley, CA.

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F d p dfwulf#Djh=#D \$ rxsolwq#E dvhg#7wq|1#

[kws=2z z z lwdjh1w1jrs2dwf02wmp 25392539b<<2dwf0#](#)

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Greenlee, et al. <http://ceip.aacrjournals.org/cgi/content/full/16/8/1601>

Hoffman, David. Medical Herbalism

Kurtz, Andy. "Menstrual Diarrhea and Menstrual Constipation." Seattle Institute of Oriental Medicine.

Swiezicki, Atava Garcia. Lectures 4/08-11/08. Berkeley, CA.