Background:

Prepubertal genital pain is often a diagnostic dilemma due to a broad differential diagnosis and the patients sometimes limited verbal ability to describe their pain.

Straddle injuries, which result from a fall directly onto the perineum while straddling an object, are a common culprit of vulvodynia in children. In some instances, this forceful impact onto the bony pubic tubercles may precipitate a culprit of vulvodynia in children. In some instances, this forceful impact onto the bony pubic tubercles may precipitate movement past the physiologic barrier, producing a superior pubic shear. Consequently tension between the urogenital and pelvic diaphragms is increased, resulting in genitourinary complaints. In addition, pelvic diaphragmatic strain increases angulation of the anorectal junction in pediatric patients, which frequently produces constipation.

Case:

Initial Visit and HPI:

A 3-year-old female presented with her mother to her primary care physician with a chief complaint of vulvar discomfort and dysuria following a straddle injury while riding her tricycle. At that time, she tested positive for a staphylococcus positive urinary tract infection.

After completing the antibiotic regimen and a negative urine culture, the patient still reported vulvar discomfort and was referred to pediatric and adolescent gynecology.

Gynecology consultation:

The initial gynecological evaluation revealed a slightly injected hymen, a small amount of vulvar irritation, and mild erythema. Mild vulvovaginitis and chronic irritation were suspected and the patient was treated with 1% hydrocortisone ointment.

At the follow-up visit, she continued to report vulvar pain and discomfort while sitting. Physical exam revealed pain of the superior labia and resolution of mild vulvovaginitis and irritation.

Discriminants of this case:

Due to persistent discomfort despite a normal physical exam, a non-allopathic component was considered, and the patient was referred for osteopathic manipulative therapy (OMT).

Osteopathic Evaluation:

At the first visit, the patient was now eight weeks post straddle injury, and continued to report vulvar discomfort. She also had new onset constipation and dyschezia.

Initial Structural Exam:

1. Malalignment of the occipital-atlanto joint and T3-T4
2. Right quadratus lumborum hypertonicity
3. Tension of right sacroiliac ligament
4. Right anterior innominate
5. Externally rotated left femur
6. Right sided pelvic diaphragmatic restriction
7. Bilateral thoracolumbar diaphragmatic restriction

All somatic dysfunctions were treated with myofascial release in the supine position and the patient was prescribed MiraLAX.

Follow-up revealed a new somatic dysfunction, a left superior shear, though the patient and mother reported less pain overall and normal bowel patterns. Myofascial release was directed at the new and aforementioned somatic dysfunctions, and the mother was advised to stop MiraLAX.

Four week later, the patient reported significant relief. Osteopathic exam revealed minimal residual somatic dysfunctions, in addition to a left on left sacral torsion and a right anterior innominate. All somatic dysfunctions were treated with myofascial release in the supine position.

The patient presented for two additional appointments and showed continuous improvement. At the fifth visit, the structural exam revealed minor somatic dysfunctions, but no pain was reported. Her mother was advised to follow-up as needed.

Discussion:

In this case, we report on a pediatric patient who had persistent vulvar discomfort. She was ultimately found to have several somatic dysfunctions, which were determined to be the underlying cause of her pelvic pain. Her constipation likely resulted from pelvic and sacral dysfunction, all of which distorted the pelvic floor and anal canal.

The combination of MiraLAX and myofascial release of the pelvic diaphragm likely normalized the patient’s bowel patterns. While the treatment of the primary injury, a superior pubic shear (see Figure A), with OMT led to resolution of her vulvar pain.

To conclude, pelvic pain is a concern that does not discriminate among age groups or specialties. Keeping somatic dysfunction in the differential diagnosis can help expedite resolution of pain.

Acknowledgements:

Special thanks to David Eland, DO, FAAO and Eric Miller, DO, FAAO, for reviewing the osteopathic portion of this case report.

Figure A: Represents a left superior shear