

## **Pelvic Physical Therapy Distance Journal Club**

February 9, 2022

Association of coccygodynia with pelvic floor symptoms in women with pelvic pain. Neville CE, Carrubba AR, Li Z, et al. PM&R 2021, 1-9. Doi: 10.1002/pmrj.12706.

Article accessible at:

<https://onlinelibrary.wiley.com/share/author/CC3ZDMQPRVUPJA67EK8R?target=10.1002/pmrj.12706>

**Introduction:** I joined Mayo Clinic in October of 2019. During GYN monthly meeting on pelvic pain we were discussing pelvic floor tension myalgia. I told them that I thought there was an association between pelvic floor tension myalgia and coccygodynia.

- Prevalence of coccygodynia is unknown: Incidence in patients presenting with low back pain range from 1-2.7%
- During pelvic floor muscle contraction, the coccyx flexes, moves cranially, and pelvic floor muscle shorten
- During relaxation, strain or bearing down the coccyx extends, moves caudally, and the pelvic floor muscles should lengthen (Fujisaki 2018)
- Coccygodynia may lead to impaired shortening during contraction and impaired lengthening during relaxation of the muscles and contribute to pelvic floor muscle dysfunction, myalgia, and pain.

**Aim/Primary Aim:** To identify the prevalence of coccygodynia in women with pelvic pain and to describe the association of coccygodynia with pelvic floor examination findings and symptoms

**Study Design/Study Format:** Retrospective cohort analysis

**Methods:** Inclusion criteria consisted of a primary diagnosis of chronic pelvic pain, age < 16 years, and direct examination of the coccyx via rectal exam. Exclusion: no pain diagnosis, did not attend their physical therapy appointment, or did not undergo a direct rectal coccyx examination. ICD 10 codes: pelvic floor tension myalgia (N94.89), pelvic and perineal pain (R10.2), deep dyspareunia (N94.12), superficial dyspareunia (Np4.11), or muscle spasm (M62.838). Referring providers encompassed multiple specialties including gynecology, gastroenterology, primary care, internal medicine, PM & R, and women's health/sexual medicine.

All participants were evaluated by me.

- LE Neurologic Exam
- Musculoskeletal examination spine, hips, pelvic girdle joints
- Abdominal wall palpation and functional exam
- Vaginal pelvic floor exam
  - Neurologic exam
  - Palpation exam : pudendal nerves, pelvic floor muscles
  - Functional testing of pelvic floor muscles: Power, Endurance, Coordination
- Rectal pelvic floor exam
  - Palpation exam anal sphincter, pelvic floor muscles, coccyx and structures
  - Passive and active motion testing of sacrococcygeal joint
  - Functional pelvic floor muscle testing: Power, Endurance, Coordination

**Main Outcome Measures:**

- Prevalence of coccygodynia
- Pain scores
- Association of coccygodynia with other comorbidities and diagnoses
- Association of coccygodynia with physical examination findings.

**Results:**

N = 127

- 49.6% (63) had coccygodynia
  - **Pain to internal palpation of coccyx**
  - **Pain with passive movement of the coccyx (sacrococcygeal joint)**
- 50.4% (64) women did not have coccygodynia

No significant differences in demographic or comorbidities between groups

Significant differences were found between women with coccygodynia those and without

- Higher VAS (median 5 vs. 3,  $p = .014$ )
- Higher rates of Muscle spasm , Outlet dysfunction constipation, Fibromyalgia (15.9% vs.
- Significant differences in Pelvic exam findings: Women with coccygodynia were more likely to have
  - OR 16.86 coccygeus muscle spasm
  - OR 16.81 anococcygeal ligament pain
  - OR 11.39 hypomobile coccyx
  - OR 15.5 EAS spasm/pain
  - OR 2.55 PFM coordination impairment

**Discussion:**

49.6% of women seeking pelvic floor physical therapy for pelvic pain diagnoses were found to have coexisting coccygodynia.

- The prevalence of coccygodynia in this patient population far exceeds the reported prevalence in other pain populations.
- Higher VAS score likely associated with specific findings on exam Sacrococcygeal joint hypomobility, Coccygeus muscle spasm , Anococcygeal ligament pain External anal sphincter pain/spasm
- Higher rates of outlet dysfunction constipation may be related to pain ( EAS pain, coccygeus spasm, anococcygeal ligament pain) impaired SC joint mobility, impaired coordination
- Strengths: large cohort, single examiner
- Limitations: validity reliability and responsiveness to change of exam and tests are unknown, normative data of PFM function is unknown, single examiner

**Conclusion/Summary:** This study confirms the association between coccygodynia and pelvic floor muscle dysfunction reported by other authors. Findings suggest a direct link between impairments in coccyx mobility, pain, and muscle spasm and dysfunction of the pelvic floor muscles.

**Clinical Application:** Patients with pelvic pain should be screened for coccygodynia, pelvic floor muscle impairments related to the coccyx may need to be addressed in treatment considerations.

**List discussion questions:**

How do you screen for coccydynia?

Do you perform rectal PFM exam on patients with pelvic pain?

Do patients recognize the link between tailbone pain and other pelvic pain symptoms?

How do you treat coccydynia?