Pelvic Physical Therapy Distance Journal Club
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Clinical decision making for the evaluation and management of coccydynia: 2 case reports. Marinko LN, Pecci M. JOSPT 2014;44(8): 615-621.

Introduction:

- Sacrococcygeal joint ROM ranges from a total of 5-15 deg in each direction (flex-ext); instability is defined as >25 deg flex or >20 deg ext. Instability does not equal Sx.
- Women are 4x more likely to have Sx of coccydynia, people with increased BMI (no defined value) 3x more likely
- Dx: no gold standard for imaging studies, no reliability studies of manual assessment; based on clinical presentation, static-view imaging, H&P
- Rx: intrarectal manual therapy
    - Maigne et al 2006: intrarectal manipulation x 3 sessions resulted in better outcomes for pain and function at 1 and 6 mos
    - Maigne et al 2001: intrarectal massage, mobilization, and stretching resulted in positive success rate of 43% at 2 yr follow-up; success varied based on cause of coccydynia and classification of mobility disorder
    - Effectiveness of mobilization may vary based on underlying cause and individual patient characteristics.
- Rx: corticosteroid injections
    - Wray et al 1991: 60% success with cortisone injection alone, 85% success with injection and manipulation. Only 16% success with US and shortwave diathermy.
    - Mitra et al 2007: pts with pain duration of < 6 mos were more likely to have significant relief at 3 yr post fluoroscopic-guided injection than those with longer duration of Sx
    - Suggest that injection earlier after Sx onset and guided injections are more safe and effective
- Rx: coccygectomy - recommended in cases of acute trauma and when conservative mgmt has been unsuccessful
    - Hodges et al 2004: pts who underwent coccygectomy (34%) had significantly greater pain and Oswestry scores prior to treatment
    - Suggests that pts who opt to undergo surgical excision, even with potential for complications, have more pain and functional limitations than those who opt for more conservative forms of treatment
    - **Only complications noted were related to wound healing and infection. No mention of PFM function or effects on B&B function.**
    - With limited body of evidence for any treatment, authors recommend conservative prior to surgical interventions.

Aim: to help guide clinicians in the diagnostic testing and clinical decision making for both conservative and surgical management of coccydynia

Study design: Case study (x2)

Case descriptions:

Case 1:

- 26 yo female grad student w/ 5 mos Hx pain in sitting and with STS transition. Involved in MVA 6 mos prior to PT exam.
- Reduced ant to post mobility with intrarectal exam, coccyx movement anteriorly reproduced pain Sx
- Rx: A-P mobs - stretch and oscillate 10-15 sec within tissue slack, and then at end range 4x; immediate complete reduction of pain with STS, 80% reduction in sitting pain
- At 2nd visit (12 d later), still pain-free with STS, but pain persisted with sitting > 1hr. Hypomobile coccyx. Rx with coccyx manual traction in addition to mobs performed during 1st session
- At 3rd visit (17 d later), same intervention as visit 2. 95% improvement of sitting pain
- Email f/u at 6 wks, 12 wks, and 1 yr: pt reported cont'd relief from STS pain, mild pain after prolonged sitting

Case 2:

- 31 yo female editor with 1.5 yr Hx of pain in the buttocks region onset following 5 days of increased sitting for work x 4 additional hours/ day
- 4 mos post-onset, treated by physician with unguided injection to the SC joint, issued donut pillow **(why?!)**. Complete resolution of Sx.
- Pt presented to PT 1 yr later when Sx ret'd. Static images of coccyx "normal." Hypomobile SC joint in A-P direction, pain when coccyx was moved both ant and post. Small mass on post coccyx palpable externally, tender to palpation.
- Rx: traction at end range held 10-20 sec, 4x; resulted in 60-70% relief of pain with STS and able to sit pain-free for short periods
- 2nd visit: maintained improvement with STS, return of pain in sitting at work. Normal mobility, pain in ant direction, relieved with traction. Added A-P mob with sustained stretch, resulting in pain-free sitting.
- 3rd visit: STS Sx improved, pain in sitting ret'd. Same manual treatments. Temporary improvement in Sx.
- Referred for US imaging: coccygeal spur distally, not seen on xray. Rx with injection, no sustained relief. Underwent coccygectomy, ret'd to full activity and work levels 8 weeks post-op. Mild pain with prolonged sitting at 1 yr post-op.

Discussion:

- Both patients were females with BMI that did not further elevate risk; no traumatic onset in either case. Same symptom presentation, different responses to treatment. Of note, Case 2 pain was present 3x as long as Case 1.
- In Fig 5, authors present algorithm for clinical decision making
    - State that 3 visits are standard for resolution of symptoms (Maigne et al)
- Regarding the palpable spur on coccyx - Maigne study (2000) found bony deposit on dorsal coccyx present in 14.4% of participants; 73% associated with immobile coccyges. Form follows function - a result of tugging on an immobile bone?
- Success rates for surgical excision are variable

Conclusions:

1. Short-term manual therapy should be considered a reasonable initial option of care, as it poses minimal risk of complications and is associated with positive outcomes.
2. Authors recommend plain film radiography and surgical consult if no improvement in Sx with intrarectal mobilization OR abnormal tissue findings are present OR if there is a *perceived* mobility disorder of the sacrococcygeal joint during examination.

Discussion questions:

1. The authors recommend plain film radiography to assist with Dx and direct treatment. Do you feel confident requesting an x-ray of the coccyx when patients are not progressing? How can we request radiographs with more meaningful results than "normal presentation" or "no fracture present"?

    Discussion points:

    - May get better readings if you add suggestions to the imaging request, ie - pt presenting with diffficulty sitting on R side s/p fall down stairs
    - Radiograph/ imaging does not always correlate with S&Sx - does it change your clinical decision making?
2. How can we standardize assessment and treatment of the sacrococcygeal joint?
    - Heavy reliance on blind palpation and expert opinion
    - As Cindy noted last month, potential for intra-rater reliability but difficult to assess since assessment could influence position or muscle tone
    - 2013 systematic review (Howard et al)
        - Several of the studies published regarding manual therapy intrarectal mobilizations that were not performed by PTs
        - states that the role of the levator ani in coccydynia requires further research
3. Do you find that it typically takes only 3 visits to resolve coccydynia symptoms? Does the duration of Sx prior to beginning PT affect the frequency/ duration of treatments required to alleviate symptoms?
    - In last month's discussion, suggested that pt should see improvement in Sx in 4-6 visits; if not, potential that something else is the driver
    - Maigne et al 2006 Predictive factors for a positive outcome: short duration of time between onset of Sx and initiation of Rx, traumatic coccydynia vs insidious onset, and patients with a stable coccyx

Closing thoughts:

- Article makes no mention of addressing the pelvic floor - written by an ortho PT
- All PFD patients should be screened for Hx of tailbone injury, at least subjectively

Other relevant articles:

Howard, Paul D., et al. "A comparison of conservative interventions and their effectiveness for coccydynia: a systematic review." *Journal of Manual & Manipulative Therapy* 21.4 (2013): 213-219.

Dharmshaktu, Ganesh Singh, Navneet Adhikari, and Binit Singh. "Coccydynia: A lean topical review of recent updates on physical therapy and surgical treatment in the last 15 years." *Journal of Orthopaedic Diseases and Traumatology* 2.3 (2019): 44.