Why do manual treatments for coccydynia differ between practitioners?

Jon Miles
www.coccyx.org
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The reason for this talk is that in previous coccyx symposiums I was puzzled about the differences between the types of manual treatments reported - some methods seemed to have almost nothing in common with others, but all reported success in treating the condition. I wanted to understand why, and which treatments worked best.

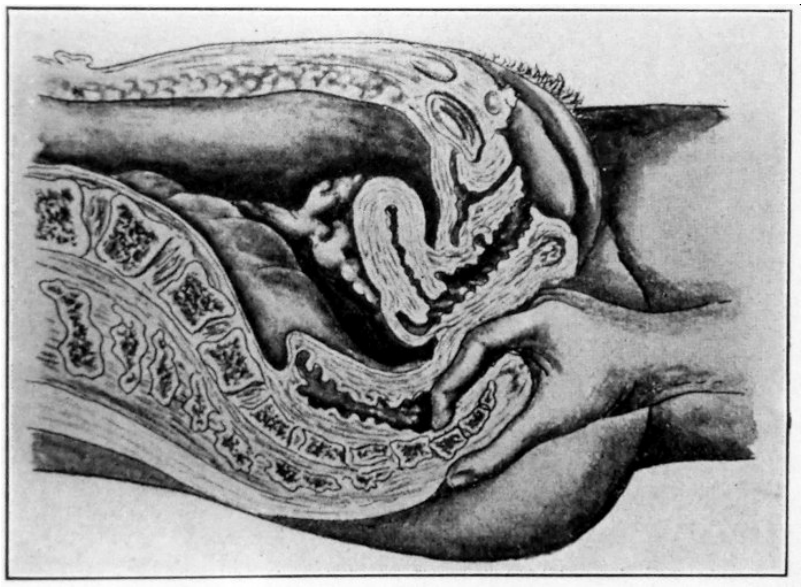
Looking at the various manual treatments offered, I see differences in three main areas:

1. Therapists reach the coccyx by different routes: rectal, vaginal, external (through the skin covering the coccyx) and indirect (where the therapist's hand does not go near the coccyx).
2. Therapists apply different treatments: repositioning, massaging, mobilising joints, and others.
3. Almost all will provide various additional treatments and advice, such as exercises, acupuncture, trigger point therapy, etc.

I will discuss the routes by which therapists reach the coccyx and the treatments they use in parallel.

Treatment via the rectal route

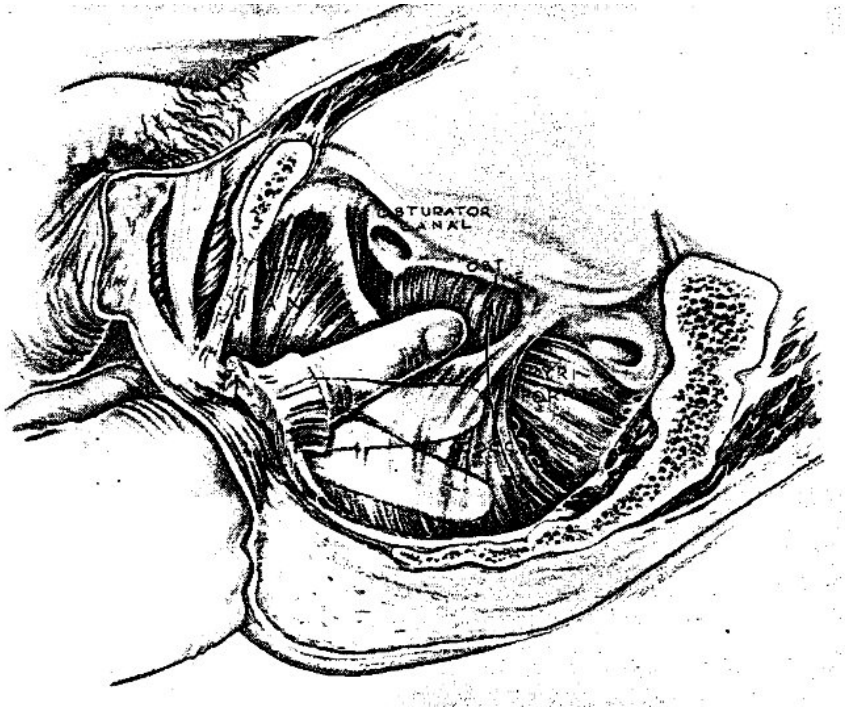
The rectal route has been the most common way of reaching the coccyx from the time of the Roman Empire, and the method has been recommended in successive manuals for physicians for centuries. The normal position of the patient is prone or lying on one side. Before surgical gloves and lubricants were introduced, the advice was for physicians to use a finger dipped in oil. One manual advised the use of oil of roses, which was a nice touch.



There are detailed accounts of the methods used in the modern era by two chiropractors, Marc Heller and Susan St Claire (www.coccyx.org/medabs/heller.pdf and www.coccyx.org/medabs/stclaire.htm), who wrote them as instructions for other therapists. They include details such as consent forms and how to talk to patients. The first of these suggests practicing the method on a family member or member of the office staff before using it on patients.

The instructions include diagnosis, repositioning and massage, repeating the treatment three to five times in a session, then repeating the sessions a number of times over weeks until coccydynia is relieved.

George Thiele was an American surgeon who used manipulation and massage to treat hundreds of patients for coccydynia from the 1930s onwards. This is his illustration of the massage he applied (Thiele, G.H. Coccygodynia: Cause and treatment. Diseases of the Colon & Rectum, Volume 6, 422–436, 1963.)



Michael Durtnall is a chiropractor who also has treated hundreds of coccydynia patients. He takes a different approach, as he has reported at previous symposiums, concentrating on mobilising stiff joints above the dislocating joint, to relieve the pressure that causes the dislocation.

Treatment via the vaginal route

There is very little published about treatment via the vaginal route. In the next lecture Elif Gurkan will be discussing this method.

In the reports on www.coccyx.org, only about 1% of the patients who mentioned manipulation said it was via the vagina. Some patients were offered the choice of routes, and chose the vaginal route as they thought it would be less uncomfortable.

Treatment via the external route

Marc Heller in his account says that he finds internal manipulation more effective than external, but gives instructions for carrying out external manipulation for situations where the internal route is not appropriate:

- Treatment carried out with the patient sitting
- Find the tip of the coccyx through the skin
- Gently pull it back
- Have patient slump forward
- Have patient lean left and right
- Have patient extend one leg slowly on the more affected side
- Repeat three to five times

A different version of external manipulation was recommended on coccyx.org by a patient called Brenda, and this is self-manipulation, taught to her by a massage therapist (www.coccyx.org/personal/2003/brenda.htm).

Having a recommendation on my website for patients to treat themselves makes me nervous, so I make four points clear:

- This is Brenda's suggestion, not mine
- It is only suitable if the coccyx is displaced forwards
- If you carry it out yourself, it is at your own risk, and it could make your pain worse
- If you do try it, please let me know the outcome

Brenda does not provide any diagrams of the treatment, but I can call on the sculptor Rodin at least to show the starting point of the treatment.

While leaning forward the patient is instructed to reach behind with one hand, and slide a finger down between the buttocks. Then find the tip of the coccyx, hook your finger over it and pull backwards. Sit up straight. Repeat as necessary.

Treatment via the indirect route

There is a different way to move the coccyx, developed in the Netherlands, called Non-Invasive Manipulation of the Coccyx, or NIMOC. This is the indirect approach.

For this method, although the coccyx is felt through the skin and the underwear as part of the diagnosis, the treatment moves the coccyx only by moving the body of the seated patient, while the patient's contact with the table keeps the skin from moving. There is a supplementary therapy, treatment of trigger points with a Sylo pen, which is regarded as an integral part of this treatment.

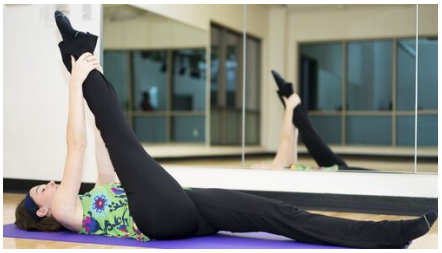
Additional factors

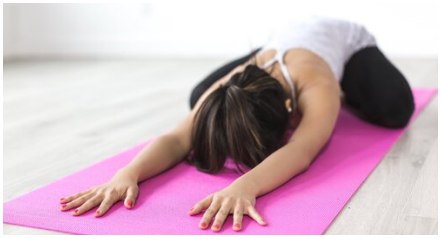
All of the successful manipulators that I know emphasise the importance of additional treatments and advice:

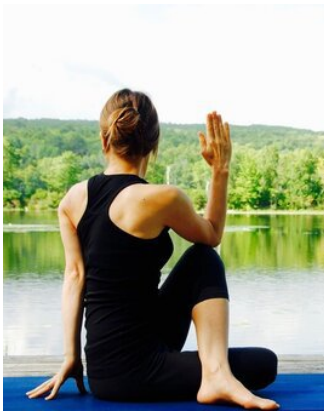
- Specific exercises
- Advice on posture
- Advice on seating

- Acupuncture
- Trigger point therapy
- Vitamin supplements
- Dietary advice
- Thumper massager
- Leg length compensation
- Removal of infection
- Rectal diathermy

I have separated the first three on the list as they seem to be the ones that are most important. The figure below shows a range of exercises used by one chiropractor, but the choice of exercises depends on the diagnosis.








Advice on posture when standing or sitting is important, such as advice to avoid being hunched over a computer, or to use a sit-stand desk. Suitable seating is of course essential for people spending most of their day sitting. Getting patients to take responsibility for their own health is often part of the treatment. They are not just passive objects to be fixed by the therapist.

How well do rectal treatments work?

Very few papers give any statistics on success rates. Here are three that do provide information, though for different treatments, with different results expressed in different ways. You can see that the reported success rate varies widely.

- Thiele: 62% improved or cured (Coccygodynia: Cause and treatment. Diseases of the Colon & Rectum, Volume 6, pages 422–436, (1963)
- Durtnall: mean pain reduction 73% (Coccyx Manipulation Statistics, Presented at the 8th World Congress of Low Back and Pelvic Pain, Dubai, 2013, https://www.coccyx.org/medabs/durtnall.htm)
- Maigne: treated patients 22% >50% improvement, placebo 11% >50% improvement. (The treatment of chronic coccydynia with intrarectal manipulation: a randomized controlled study. Spine, 2006 Aug 15;31 (18): E621-7.)

There are major differences in the way the studies were carried out and in the results. Jean-Yves Maigne's study was the only one that included a placebo group, and it reported the lowest success rate. On the other hand, it was a more limited treatment, three five-minute sessions, whereas the other studies included longer treatments and

many more of them, so this may account for some of the differences in results. The different treatment methods and length of follow-up will also make a difference.

How well do vaginal treatments work?

For vaginal treatments, there have been no published results, and hardly any anecdotal information. Of the five patients who reported having this treatment on coccyx.org, two also had rectal treatment, so must be excluded. Two of the remaining three reported failure, one reported partial success.

How well do external treatments work?

There are no published studies of the success rates of external treatments. A friend of mine who is a physiotherapist used to use internal manipulation when she worked in a hospital, but now as she is working alone in private practice she only uses external treatment. She reports success with this treatment with several patients, and gave me an example. A 15 year old girl injured her coccyx falling down stairs, with the coccyx shifting laterally. Three sessions of external treatment plus home exercises resolved the pain. Two years later she fell when ice-skating and injured it again, and again was successfully treated.

Forty-two people reported to coccyx.org that they had tried Brenda's self-manipulation method. The results were:

- Made the pain worse 3
- No effect 5
- Improved or cured 34

I have not put percentages against these results, because I think that we are missing large numbers from the 'No effect' category. If you try a treatment suggested on the internet, and it produces no result, you are likely to forget it and move on to something else. But if you get significantly better or worse, you are much more likely to report it. So all we can conclude is that it helps some people and harms a much smaller number.

How well do indirect treatments work?

There was a case study of NIMOC at the Munich coccyx symposium, but not the results of a trial. There will be a paper on the method later at this symposium.

Why do methods differ?

Therapists are usually guided in their choice of method by what they have been taught, and may not have knowledge of other methods. There is also the major factor that there has been no clear information about the relative effectiveness of different treatments. But there are advantages and disadvantages to different methods.

Internal manipulation has the advantage is that it gives the best access to the coccyx, its attachments and surrounding tissues, so the greatest scope for treatment. Its

disadvantages mainly arise from the fact that it is invasive. In some American states it is illegal for anyone to carry it out unless they are medically qualified. Some patients find it embarrassing or disgusting, and so avoid it. Practitioners using it need to make sure that they have informed consent, and many insist on a third person in the room. It's not advisable in the case of anal fissures or painful haemorrhoids, and the practitioner needs to be careful not to damage the rectal lining.

External, vaginal or indirect manipulation may be more acceptable to some patients than internal manipulation. Some practitioners say that they have found that alternatives to internal manipulation are less effective, but there are no controlled comparison studies to demonstrate this.

Lack of research on manual treatments

Up to the middle of the twentieth century, many surgeons or gynecologists used manipulation to treat coccydynia, and successful results were reported in the medical literature. But this was in a period when controlled trials of the effectiveness of treatments were rare, and there was little or no statistical evaluation of the results.

Around this time, injections of corticosteroids became a standard medical treatment for coccydynia, and reports of manipulation by doctors in the medical literature ceased for many decades. From the middle of the 20th century medicine was becoming more evidence-based, and there were trials of corticosteroid treatment, but they were usually short-term, typically three months duration, and did not follow up the long-term outcome of treatment. When, later, more long-term studies were carried out, they showed that the success of corticosteroid treatment was much less than had previously been assumed.

Physiotherapists, osteopaths and chiropractors continued to use manual treatments after doctors had largely given them up, but they were not trained in methods to test and evaluate the effectiveness of treatments, and lacked the institutional support to carry them out. More recently this has been changing, with doctors led by Jean-Yves Maigne carrying out trials, and some manual therapists doing the same. Hopefully this will lead to better information on the most effective conservative methods for treating coccydynia. In the meantime, while it is clear that manual treatments are often effective in relieving coccydynia, it remains uncertain how effective they are and which approach is best.