Academy of PHYSICAL MEDICINE

Broadcast Summary

The Pregnant Patient
With Stephen Sandler
First broadcast on

About Stephen Sandler
Long-term lecturer at the British School of Osteopathy
Lecturer in over 20 countries abroad
Great deal of experience in obstetric osteopathy
Became interested in the field as a third-year student
    After being told, "We don't do anything [to a pregnant lady]"
Opened up the very first specialist clinic to treat pregnant patients in 1980.

General Information
No more difficult for men to treat pregnant women.
    Many gynecologists are also men.
The pelvis is going to have to widen so that the baby can descend through it.
Pills cannot be taken for pain etc.– especially in the first trimester.
Posture has to be able to change.
With the body changing, the viscera becomes squished and squashed.
Undergraduate training in schools now have pregnancy development sites.
    E.g. The BSO, the ESO, the LSO
    At Sandler's BSO, there's an elective in the fourth year teaching how to treat pregnancy.
Specialist clinics are running so the students are getting specialist knowledge.

For Pregnant Patients:
Unique Examination
Unique assessment of postural changes
Techniques change:
    Structural techniques, visceral techniques, craniosacral techniques, myofascial techniques
    E.g. Patients can't lay face down
Never been a case of manipulation causing a miscarriage
Absolute minimum of force and absolute minimum of leverage.

Dangers of the First Trimester?
Obsestrics wheel marks this period as 4, 8, 12, 16 weeks.
When a spontaneous or a natural miscarriage is going to happen.
Advice to students is to not treat at this time.
    Danger of association with disaster that is not the making of practitioner.

As practitioners, assess the risk and avoid treating if you can avoid treating at that point.

Differences between Practitioners

Physiotherapists examine the sacroiliac joint and not very much more
Techniques used by physios include grade five Maitland
    Different to short-lever techniques of osteopaths.
Osteopaths: Structural, craniosacral and visceral techniques all very important.
Not aware of any contraindications between osteopathy and chiropractic.
    Probably share similar concerns of manipulating in the first trimester.

Treatment

[Watching the video around the 35-minute mark makes this section clearer]
Same standing examination.
One-gram pressure at the sternum or one-gram pressure in the central spine is to feel whether there's any sway.
Regular diagnostic techniques used in structural techniques

Sacroiliac Test:
    Bringing the leg and shearing down through the pelvis, keeping the foot flat.

Patient can't be face down but you can palpate the superior pole, the inferior pole.
Use of rocking test and shearing test as normal.

'Myth' of patients lying on their back
    The pressure on the Vena Cava lowers blood pressure and causes the patient to fall over.
    Perfectly happy to be supine for short assessment.
    However, craniosacral examination always carried out side-lying.
Obsestrics want you to sleep for eight hours on the correct side.
    Treatment lasts nowhere near as long

Side-lying
Obsestrics prefer lying on the left side- less pressure on the vena cava
    If pain is on the wrong side, patient will lay on that side.

Assesment in the cervical spine:
Exactly the same way as I would assess someone who wasn't pregnant
    Looking at rotation, lateral flexion, and shifting.
Moving the thoracic spine with fingers on the facet joints.
Don't push too hard- bust larger and tender.

Assessment in the Lumbar Spine
Classically, one would take both knees and lock
    Difficult due to the belly.
Take one leg and palpate movement in the spine.
Evaluation is side-lying and not face down.

Craniosacral Palpation
Examine, sitting behind the patient.
Left hand, occipital condyle. Right hand, sacrum.
Assessment from the head to the base of the spine.
    Use of all craniosacral techniques in this way possible.
For those who have little experience with this technique, pregnant patients are perfect to learn with.

Muscular Back Pain
Use the longitudinal soft tissue technique with the patient sitting
Work longitudinally either locally or up the length of the spine.

Headaches
A very gentle mobilization technique below the occiput
    Very pleasant

Wouldn't be frightened of using high velocity techniques or minimal leverage
All techniques require short lever and minimum force.
    To prevent overstretching due to the presence of relaxin.
    The longer the lever, the more force is present.

Dog technique
Trying to separate one facet from another.
Avoid compression as it will cause discomfort to the patient.
Hold the spinous process between the thenar and hypo-thenar eminence and then encourage an extension from below.
Get the patient to almost give themselves a hug.

Thoracolumbar Junction?
(Lying on side)
Hyperextension at the knee and at the ankle.
Foot positioned at the corner of the table.
Back kept vertical
TL Junction
    Classic technique would be to roll and apply force
        Would compress the baby.
    By adjusting feet to face bottom of the table, the technique comes in from above without abdominal pressure.

All these techniques can be used out of pregnancy
    Pregnancy has improved Stephen's knowledge of osteopathy.

Standard Pattern of treatment for Symphysis Pubis Disorder
Check size first.
Then have the patient both supine and side-lying, checking the superior and inferior pole.
Find the restriction pattern and then correct using an MET technique, functional technique and thrust technique

Dependent on patient and own clinical experience.

The Pubic Symphysis itself:

Ensure that your technique is capable of isolating the pubis way above the genitals on the pubic arch.

Consent forms are important – intimate area.

Classic MET 'Shotgun' Technique

Often performed very badly.

Not a thrust technique as is often taught (especially not in pregnancy)

Patient supine

Practitioner places fingers between knees and gets the patient to snap shut.

After a couple of times, simply **hold** knees in place.

As the patient's adductor magnus contracts, trap petra muscles and it becomes an MET technique.

Appointments (Times and Dates)

Start off seeing them once a week

Until the acute symptomatology is gone.

Then every 3 or 4 weeks as pregnancy progresses.

Towards the end, once a week to prepare them for the big day.

Structural Changes of a Pregnant Lady.

[First Slide in Video]

Spine has curves in the neck, thorax, lumbar, sacrum.

The center of gravity line drops from behind the mastoids down through the body.

Weights distributes itself anteroposterior.

[Second Slide in Video]

Baby begins to rise out of the pelvis.

Then, it leans on the rectus abdominis which goes from the pubis to the xiphoid.

The contraction of the rectus abdominis tilts her pelvis backwards.

Causes pain under the Xiphoid.

Lumbar spine flattens if area above at the TL junction is mobile.

As this happens, thoracic kyphosis tends to deepen.

Second Trimester

Spine is considerably flatter throughout the thorax

Baby positioned fairly high under the diaphragm

Reflux likely at 24 weeks due to 'squishing' of stomach.

Occurring in the Esophagus

Osteopaths better at treating this.

Hormones such as Relaxin are lowering the tone of the esophageal sphincter

Bust begins to enlarge

Shoulders come around the chest and chin comes forward.
Changes to the pelvis (in terms of time) can depend on how many children you've had, previous ligamentous laxity and hypermobility.

Third Trimester
Sacrum rolls forward, rotating anterior.
Strain on DL and LS junctions.
In case of grade one spondylolisthesis, all of this weight now shifting over into lordosis is going to impact those facets. Therefore, facet infarction, facet joint paint and spondyloarthrosis is all common at this point.

Problems and Patterns at Stages of Pregnancy
80% of women have back pain because of these structural changes.
If you can predict the changes and encourage the changes before they're needed, then they take place effortlessly.
Early Pregnancy:
Muscular decompensation problems
In front and behind of the center of gravity line.
Pain at the insertion of the muscles into the xiphoid- into the pubis.
Not so much pain in the lower back.

Second Trimester:
Changes in Posture may cause problems:
If there's any old Scheuermann's disease.
Old damage within the anteroposterior plane.
Junction Therapy important to the treatment of pregnancy both at the LS, TL, CD and then up the occiput.
Everything is being held forward and back as neck accommodates to changes in the body.
Lots of headaches
No pills but muscular headaches can be easy to fix.

Less obvious problems
Pubic pain.
Treat sacroiliac, as if it's restricted, it causes hypermobility of the pubis.
Serola binder belt holds things together and helps with those who are hypermobile at the end of pregnancy.
http://www.serola.net
Success Rate: estimated at 60%+
Pubalgia
Brachialgia
Changes in the lateral plane which can involve entrapment syndromes through the upper extremity

Carpal tunnel syndrome
- Due to the body being engorged in water.

Tiredness

Backache
- Increased weight with decreased support mechanism as Relaxin relaxes off the joints.
  - Muscular pain and overstrain syndromes are common.

Foot and hypermobility problems
- Temporary orthotic useful

Constipation is one of the most common issues during pregnancy
- Osteopathy can have a great effect working through the colon and its attachments.

<u>Issues of treating pregnant patients</u>

No complaints of inappropriate behavior towards patients.

Certain people claim, without evidence, that osteopaths should not be treating pregnant women- e.g. treatment will harm the baby.
- Actually, manipulation forms a small part of treatment
  - One part of the entire osteopathic approach.

Allowed to treat up to the labour and during the post-natal stage.
- Interim, e.g. the birth, governed by law and is not the osteopath's place.
- Conversely, if the obstetrician asks for your input, it is acceptable.
  - Dr. Sandler has been invited to manipulate patients on several occasions during labour with successful results.
  - However, the invitation **must** come from the obstetrician.

When to refer to GP (what to look out for)

Patient will have approx. nine visits scheduled with her midwife, GP, consultant etc.
- Anything can happen between these visits.

Examples of problems and signs of issues to report to GP:
- Gross edema, high blood pressure, vaginal bleeding, weight gain, weight loss, excessive tiredness and vomiting.
- Weight gain may be abnormally high, query in the same way that you would any bleeding issues or abdominal pain etc.
- One case resulted in an ambulance being dispatched directly to clinic, where the situation was controlled.
- It may be that when you feel the patient's tummy, you can feel the early start of labour itself.

If in any doubt about a patient, seek guidance.
- Speak to the GP, the midwife, the consultant etc.
  - Midwives are all too happy to give advice and are very wise.

<u>Effect of the Relaxin Hormone</u>

Unwinds the collagen ropes (a series of fibres intertwined with cross-chemical bridges)
- Occurs, effectively, on demand...:
- If previously stiff, Relaxin begins at the start of pregnancy.
- If grossly hypermobile, the changes won't occur until the end.

There are fantastic receptors in the jaw but travels over the whole body.
Useful for osteopaths to use in order to change ligamentous tone.
    Often a big everyday problem for normal patients.
Relaxin disappears two days post partum.

Minimising the Problems
Exercise- pregnancy pilates class
    Walk, swim, horse-ride or run if already involved.
Avoid translating across the body
    E.g. cross-trainers are not particularly a good idea
Golf and Yoga could be concerning as they can take you to the end of the range of movement
Keep working, improve mobility, consider cardiovascular and respiratory health.
    Remember everything is being 'squished up'

Post Partum
Hip and back slings for babies reduce strain on the spine.
Sling over the front is a 'natural place for the baby'.
Use of a Ventouse applies traction and pulls baby out; can distort the head.
Osteopaths can mould skull with subtle techniques.
    E.g. if instruments used in delivery, a delay in labour, undue tearing of the pelvic floor etc.
Always tells a patient to come and see him after being signed-off by the obstetrician/midwife.
Role: check pelvis, shoulders and viscera.
    'Free gift' check the baby over.
These aren't new skills: taught at undergraduate level.
    Post-graduate courses are just an extension of knowledge already obtained.

Breech Position
Makes no difference if baby is in breech.
Previously, osteopaths were able to turn babies but this is exclusively for obstetricians now.
    To be sure that the cord isn't wrapped around the neck.
    Dr. Sandler had success previously in turning babies.
    Similarly, internal techniques are a part of the obstetrician's domain.
Obstetricians use an external cephalic version to turn babies.
    Accompanied by ultrasound to check placenta position and where the chord is positioned.
Interesting Fact: 60% of breech babies that are turned, revert back to breech position.

Greatest Triumphs in Treating Patients or Babies
Being able to treat Pubalgia with elbow crutches in a couple of treatments
    Used to have to use a Zimmer Frame.
Treating reflux and stomatitis using techniques around the diaphragm, lower part of the esophagus, visceral techniques with the stomach and abdomen.

Working in the ribs and upper thoracic spine, stretching it to prepare for deeper breathing and pushing during labour.
Use of craniosacral techniques to prepare and stretch the pelvis for labour.
Working on muscles at the front of the spine
Soleus is so important to allow hip hyperextension.