Sun,
Sep 3,

Stuart McGill

to Stuart, me

Dear Ann Marie,

It was a pleasure working with you. I hope that I didn't flair you up too badly with the trip and that you are finding better ways to settle now.

Here are a few thoughts:

Impression (Pain Triggers – Priority to address):
The pain triggers were verified as joint micromovements in a shear mode (instability or loss of stiffness). This is not seen on an MR image and it is wrong for a clinician to default to the pain being of non-organic cause because there are no other signs on the images. These manifestations of instability are the result of past overload causing the joints to lose a small amount of height and thus stiffness.
The good news is that there are no nerve tensions or frictions due to a disc bulge (it has now resorbed). There is a cyst in the central canal in the sacrum that may be influencing the pudendal nerve however we were not able to create these symptoms today.
The hips were tested and are not pain generators.
The good news is that every pain triggered, Ann Marie was able to reduce/eliminate the pain with appropriate posturing of the spine together with appropriate bracing to stiffen out the micromovements.

The first objective is to reduce the pain sensitivity with spine hygiene techniques then continue to rebuild the stability/mobility in a way that eliminates the pain triggers.

I suggest reducing the total time in bed by trying to use bolsters to position the spine in a way to remove the ache. Less time to about 8 hours maximum will eliminate the swelling pressures that increase pain sensitivity.

Past impediments/Prevention/Ergonomics:

Resistance exercises with weights are not appropriate at this stage.

Be conscious of movement all day long and this will slowly become a habit and will no longer need thought. They are your default movement patterns that do not trigger pain.

Sit with a lumbAir, lay with bolsters to remove the ache associated with certain positions.

read Back Mechanic and pay attention to the details.

Chair? – use lumbar support removing the spine flexion or slouch which increases the stress on the posterior discs.

Too much/little exercise: Time to add more stabilization exercise each day – see below.

Position of respite:

(Back Mechanic) Page 77: Tummy lay with hip bolster (hands) or towel to remove discomfort.

Inhale and image relaxing the low back and hips into the floor.

Do this a couple of times a day for about 4 minutes – if you don't need it then do not do it.

Relaxation strategy:

Standing hover: Align your ears over your shoulders, over your hips and over your knees. Stand with no muscle activation. Allow the neurology to cool down.

Release the grip with the gluteals, quad and abdominal muscles.

Now try and walk in the same manner, swinging the arms about the shoulders with no tension or pain (note you may need some conscious but mild muscle bracing).

Practice appropriate Bracing for the task.

Movement tools (Chapters 7 and 8):

Page 81, 95: Build core stiffness first, Ab brace,

then Movement tools

Incorporate these all day long:

1. Short stop squat style of lifting – eg. in and out of chair etc.
    a. Incorporate for daily activity like exiting your car, brushing teeth etc.
    b. Overhead hand push squat. May use knee bands.
2. Lunge to floor and roll

Now work to incorporate these patterns into your daily living. Recall the drop step and pull for example.

Stability:

Chapter 9:

Big 3 – descending pyramid.

10 second holds: Birddogs (pages 107-109) 3 reps per side, 2 reps per side, 1 rep per side,

Side plank (pages 105-107) on knees and elbows, same set/rep as birddog,

Modified curl (head-neck-shoulder hover) (pages 103-105) same set-rep.

a. Dose: 10s holds in sets of 3-2-1. For example 3 bird dogs with left arm/right leg lifted then 3 bird dogs with right arm/left leg lifted, then 2 each side then finish with 1 each side. Repeat with the side planks and modified curlups.

May consider deadbug arm and leg lifts with core control.

Mobility:

Zero for now

We will consider a Thoracic spine extension PNF stretch (page 136) in about 4 weeks or so.

Hip work (pages 101-102):

These can be added in the future.....Hip thrusts

Glut clamshells

lateral leg hovers.

Balance/footwork:

Standing prayer and drop step, add tennis swings

Stand on one leg, knee circles with control and no pain. The skill is to stabilize the spine with appropriate core control (not too much or too little bracing) but allow mobility in the hip – this is a skill.

Interval walking:

Chapter 10: Yes – swing arms about shoulders
3 to 4 times per day, short intervals.

Progress to walking backwards uphill (then when quads are burning, walk forwards uphill)

Future strength patterns:
See *Ultimate Back Fitness and Performance*
TRX pullups – minimal spine motion
Dynamic pushes on kitchen counter – no spine motion
We will discuss: Hand over hand push squat in the future, Loaded carries, Transition to "Ultimate Back Fitness and Performance" when daily life does not trigger symptoms.

Neural considerations:
None at this time

Additional Considerations:
None at this time

Progressions, program and cycle design:

This starting program is my best guess given your assessment findings. The dose (sets/reps) can be as important as the exercise choice and technique. You must monitor your body's reaction to the program and make adjustments in dose and technique accordingly. We discussed these elements today.

Employ the movement tools and spine hygiene 24/7. This is your biggest challenge for stage 1 of desensitizing your pain. Train the stabilization and mobility exercises each day although you may take one day off per week. Note that you will slowly add each new exercise and change in training volume slowly so that you can monitor and evaluate the effect on your body. After a while you may find that the big 3 give you a feeling of resilience for an hour or so following the session – if you feel this you may try two sessions per day – perhaps mid-morning and mid-afternoon. As you add the strength exercises in patterns begin with pushes and pulls every other day and evaluate how your body responds.

Cycle 1: focus on moving better – core control before moving. Movement tools.
Example program: Spine hygiene 24/7, tummy lay 4 minutes, groove in patterns with Short stop squat, drop step (tennis swings), big 3, push-ups 3 sets: 6 reps, 4 reps, 2 reps, TRX pulls 3 sets: 6,4,2.
Cycle 2: more core stiffness and fitness. Neural flossing
Cycle 3: To be evaluated and determined.

This is the first cycle which typically may last 2-3 weeks. Then take 3 days off. You may repeat Cycle 1 as appropriate, or move to cycle 2. The goal is to not cause spine pain and build base resilience. If there are any radiating signs try the tummy lay and floss – if this makes you worse – stop and call me.
We will have a follow-up session in a few weeks.

Remember to show this plan to your referring clinician.

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