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Editorial : 'Tricking pain'?

Reactivating patients with pain, getting them going again, pacing up their activity and exercise levels is all very well until they hit the dreaded pain flare-up and setback 'wall'. Who in their right mind is happy when things go pain pear shaped? – It's hardly surprising that many patients stop coming, stop complying and give up their programmes when a flare-up hits – especially when a good flare-up strategy is not in place. Loss of confidence and yet another failure can be devastating.
Early on in management I try to find as many ways of calming pain down (and the patient!) as possible – the goal being to make the patient confident that if they do hit a pain flare up, they know that they have an active and effective strategy to quickly bring it back down again (quickly). I reason with the patient the simple idea that if they are good at bringing pain under control fairly rapidly then they will be less fearful of a flare up and hence more confident with their physical programme.

Things I use to help formulate a flare up strategy I often get from careful enquiry with the patient: The 'pink' question is therefore to ask them what makes their pain better (In my manual therapy training I always had to ask what makes it worse)

- The drugs they have that work well.
- Heat, cold.
- Various forms of rest, stretching and other exercises.
- Massage and movement.
- Calmness, relaxation and re-evaluating the situation as logically as possible (don't panic!).
- Anything else? – ask!.

I make sure I write the agreed strategy down for them clearly and almost forcefully! Shut it up, turn the pain circuit off – if it keeps going it keeps installing itself, the 'pain-habit' gets further entrenched in your system… the sooner it's turned off the better… etc.. are the some of the phrases I sometimes use.

One of the best things, if you can achieve it, is for patients to come in with a flare up and to get the pain down there and then.

- It shows them that the pain can be stopped quickly – that their system has the ability to stop the pain given the right circumstances, and that if they practice they can get more efficient at doing it…. and if they do get better at doing it they will be helping to rewire and re-install their own, very much out of condition, natural 'pain-killing system' – their 'endorphin' system ….
- Quick pain relief, however long it works for, also helps to reinforce (prove?) the notion that:- their pain is the result of continuous high levels of 'electrical activity in a nerve circuit' (e.g. their 'annoying tune' is playing full volume) - not more tissue damage (because if there has been an injury it doesn't suddenly heal in a few minutes); – that hurt isn't harm and that the goal of increased fitness and better function is quite possible and actually, quite safe. What better way to help patients understand that their pain is the result of totally unhelpful 'electrical activity in nerve circuits' and that they have the means to stop it? … and that if they keep practicing and experimenting they

may well be able to get better and better at stopping it rather than getting better and better at starting it!

- If you know you can control your pain well, you are much more confident about physically getting going and keeping going.

Dave has a huge healed scar on his left knee. He worked in a local scrap yard until 2 years ago when a fall at work resulted in a chunk of flesh being gouged out of the soft tissue on the upper medial aspect of his left knee.
The story was complex but familiar to anyone who regularly sees chronic pain patients.

- Off work and poor relations with work
- Lawyers involved..
- Huge financial issues.
- Sitting at home doing nothing
- Falling out with family
- Spending long periods in bed.
- Fed-up, angry, emotional etc etc.
- Negative about the future.
- Fed up with health professions and complete lack of progress.
- Lots of pain behaviour – holds knee all the time, leans away from the left side, walks in a protective way…. 'the last time the Dr examined it I was in bed for a week…
- A reasonable standard physical knee examination impossible (jumps and says it hurts as hands move within 5 cms range…. Yet quite capable of full weight bearing.
- Pain all over the leg.
- Standard physio/Drs consultants with lots of tissue based diagnoses and waiting lists for further orthopaedic type investigations. 'Caught' in the medical model 'net'.

Dave did well with all my explanations of ongoing pain mechanisms, the normal healing process and its timing and all the orthopaedic diagnoses he'd been given. I did not deny any of the diagnoses he had been given, but focused instead on a model of explanation that focused on an 'even-if-damaged/or worn -it's still capable of being a great deal better/fitter… plus, a very careful emphasis on the notion that (like many other similar patients) the pain was out of proportion to the amount of damage done. From there the explanations shifted to 'circuitry' and 'processing' ones and he seemed to grasp them reasonably well.

Dave started a simple reactivation programme with enthusiasm and within 2-3 weeks was walking 20 minutes, 3 times a day, could touch his own knee with confidence, had learnt to correct his antalgic/habitual postures and movement patterns … and was doing generally very well. I was able to touch and do a full examination of his knee – cruciates, stability, collateral ligaments, range of movement, patello-femoral, palpation of the scar - and discuss all the positive findings…. Then he said…
'Louis, you know, you're the first person who has listened to me, explained anything properly and done and explained the findings, what you're saying is a huge relief and makes me quite hopeful…'

I smiled (and like I do, I cynically thought that he could well have said this to his last therapist!). But I was pleased too, and went on to reinforce his enthusiasm and determination but re-capped on the fluctuating nature of ongoing pain. I slightly wondered if he heard me in his almost euphoric state.
I gave him two more simple exercises to start to 'grade-up'. The first was sit to stand from an easy height – with the goal of increasing numbers and then to gradually go to a lower height as his confidence allowed. The other exercise was very low step-ups with a view to increasing height and ultimately being able to go up and down stairs with a normal reciprocal gait. We decided to leave it a fortnight.

2 weeks later Dave limps in, he looked like death.
'I've been in bed for the last 5 days, it's agony, I can't go on like this Louis, I did 4 of those stand up exercises and the pain was the worst it's ever been, I'm really giving up on the idea of doing them and of going back to work, I've resigned myself to being happy just to do a bit of walking occasionally.'
We talked more, he wanted to have his leg amputated he was so upset with it.
I moved back to the pain explanations, the circuits, the triggers, the habit of pain, he was almost too angry and distressed to listen or hear what I was saying.
'Your endorphin system needs a kick up the ass and it won't work if you're miserable like this, I'm going to try and cheer you up with a TENS machine. Have you heard or been given one of these in the past?'
No he hadn't, surprisingly? Or not surprisingly - after all, they're no better than placebo….hmmm!

[NOTE: *While the following may seem rather patronising from time to time, appreciate that my tone, which is obviously hard to convey, and the wording I used was carefully chosen and highly appropriate for the patient and the situation]*
I went on…
'Dave, this pain can go down, it will settle, this sort of thing that's happened is what pain experts call a pain flare up – remember I talked to you about this, it happens with all patients who have long term pain like yours and if we manage it well you can get on again…. Calm down and lets do something positive. Listen to the story I'm going to tell you…'
We made eye contact and he nodded frowning….
'30 years ago two pain scientists discovered why rubbing and squeezing where it hurts helps relieve pain. They found that the rubbing stimulates nerves in the skin and causes them to release very powerful pain killing chemicals – they're called endorphins, you may have heard of them? ….
Endorphin means natural morphine and it is at least 10 times more effective than any pain killer a chemist can make. Our bodies can kill pain, especially when it really matters. You may have experienced quite nasty cuts and bruises without realising it when playing rugby or gardening, and you may have heard of people reporting no pain at all in nasty accidents where quite awful injuries occurred. This pain relief is down to those endorphins. Pour endorphins over nerves in a pain circuit and the circuit dramatically stops – no pain. One of the problems with people who have ongoing pain like you have, is that their endorphin systems don't work so well so the pain circuits get to play easily and can go on and on for a long time. It's as if the endorphin system has gone to sleep or forgotten how to work…'
Dave was listening to me now.
I went on.

‘Now, endorphins, as I said, come when you rub where it hurts, they also come when you are frightened for your life or under some kind of awful physical threat. If right now you were out in the bush in Africa somewhere and you came across a buffalo, lion, rhino even – and they started to run towards you – even with your knee as it is – you would run for your life – and not feel a thing in your knee. Yes?’
He smiled – ‘You’re right’
‘So, what I’m going to do right now is give you 10 seconds start while I get my hand-gun…’
‘Got the point ‘ says Dave…smiling even more. (He was looking more relaxed already, he’d stopped rubbing his knee… but it wasn’t appropriate to point this out to him… on with the story…)

‘Can’t do that of course, I’d love to cure your pain by shooting you, but I’d lose my job…But, there are other important things that bring on the release of endorphins. For example, endorphins are massively released when we feel good about ourselves, when we are happy, when we are having a laugh, when we achieve a goal, when we are highly focused on one thing, even pain can cause the release of endorphins and stop pain – here, you may have heard the old saying that pain relieves pain…? So, any intense sensation or stimulus can cause the release of endorphins – cold, heat, massage, manipulation, loud music, and also, less intense ‘nice’ things can too – like soft music, relaxation, mind-altering drugs, alcohol, chocolate… Combine things and the effectiveness can get even better – soft music and a nice massage from someone you like or feel comfortable with… you feel good, your aches and pains get better…’
Dave looked a great deal better. There was a pause.
‘Go on’, I said
‘I’ve just realised that what you’ve just been telling me about is happening to me now – just by listening and being interested and stopping thinking about the damn pain has made the pain get a lot less..’
‘Circuits winding down… needle is coming off the record, remember?’ I quizzed…
‘Your pain killing system still knows how to work; it’s not gone completely! More practice required and it should get better at it!’
‘Lets get back to this TENS machine for a minute – you’re getting the idea, which is great. Right, TENS stimulates the nerve endings in your skin that release the endorphins. Two things about endorphins – they are anti-pain and they are anti-inflammatory – they are your big friends here.’
I showed him the TENS machine.
‘This machine has sticky pads that go on the skin and when you turn it on and turn the volume up you feel a tingling sensation. Most people find it very pleasant. For it to work we’ll need the following:

1. It must feel OK – no tension, quite comfortable, not frightened.
2. It’s best if it feels nice/good/you like it – remember endorphins come with good feelings. I want you to really appreciate, as you already have started to very well, that to make this endorphin system work there are two parts to it. – Firstly, you (I point at his head) and your reaction to the sensation. This part I call ‘top-down’ and means that your brain, if it likes it, will send endorphin loaded signals down to the spinal cord and to all the nerve pain circuits coming and going around your knee. On the other hand, if you don’t like it, can’t see the point of it, don’t believe in it – it won’t work half so well. That’s the first thing, feeling positive about it if possible; the second is the bottom-up effect (I point to his knee and gesture

upwards) – the simple input from the machine into the nerves of your skin that also stimulate endorphin release.

3. I also need you to feel comfortable with the idea that we are actually 'masking' the pain. Many patients feel that this is a crazy thing to do because they understand the situation as: pain means something is wrong, getting rid of the pain does not fix the problem, in fact it may make it worse as not feeling pain means that they may do something and injure or upset it even more. I hope, that from all that we have discussed you can see that the problem with your pain problem is that the pain circuit is having too free a reign, it plays itself too easily and for far too long and what it's telling you is of little help as far as your knee structure is concerned. Your anatomy and mechanics are good enough for you to be able to run but the pain circuit just won't allow you to.'

Dave nodded.
'I'm with you'
'Right, let's try it. I'm going to do it on your good knee first so you get to know what its like and feel comfortable with it and all the controls – then we do it on your painful knee, but only if you're keen and confident.'
I paused and looked at him, he nodded, slightly emotional.
'You realise we're trying to trick the pain away?' I said.
'I never would have believed this a month ago, but it makes so much sense now'.
We laughed. Crazy world!
We both knew it was going to work.

On went the pads on his good knee, up went the volume and we worked through all the settings until he felt comfortable with 'rough' current, 'smooth' current, modulated and bursting current.
'Start with the one you like the best, but feel free when you get confident to get nicely nasty with it – burst, high volume etcetera' I said.
'Ready to try on the bad knee now?'
Off we went around the scar, up went the volume, he played with it and we both relaxed.
The session had gone from high intense, high emotion to calm and back in control.
'How are you doing now?'
Dave was looking down, relaxed, smiling and quietly said,
'That's amazing, that's the first time in the last 4 months that I can't feel any pain at all.'
'Tricked the bastard' I said.
We laughed again.

Dave's back on the physical programme. The TENS helps his confidence a lot. He's decorating the house, starting cycling and speeding up the walking. He's also tentatively pacing up the sit to stand, starting a graded kneeling programme (cushion on chair putting knee on it and taking some weight through) and sorting out a meeting with the local job centre.
So far so good, but you can bet there's bound to be another set-back coming soon.

The message here may be that physiotherapy is very much still a communication 'art' preformed with the aid of simple props like TENS; which can just as easily work or fail depending on the way its 'action' is explained by the therapist and understood by

the patient. Surely then, it's a little of what you do, and a lot of the way you do it. You have to make quite an effort with a big 'sell' spiel sometimes!
The outcome? Isn't it a product of two people working together, two brains working together and therefore two nervous systems working together towards a beneficial change?

Have a good summer

Best wishes

Louis Gifford
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