

SPINAL surgery carries the risk of nerve damage, even paralysis. Mark Gould, 46, an engineer, underwent a new non-invasive technique for lower back pain. Here Mark, who lives with his wife in Cardiff, tells ANGELA BROOKS about his operation and his surgeon explains the procedure.

THE PATIENT

MY BACK first started causing problems about seven years ago when I was playing a lot of squash. After a game I'd feel very stiff and next morning I'd develop a horrible dull back ache.

This would usually ease off over the day as I moved around. My GP gave me some stretching exercises, although they didn't make much difference. I also took the odd paracetamol, but otherwise just put up with the pain.

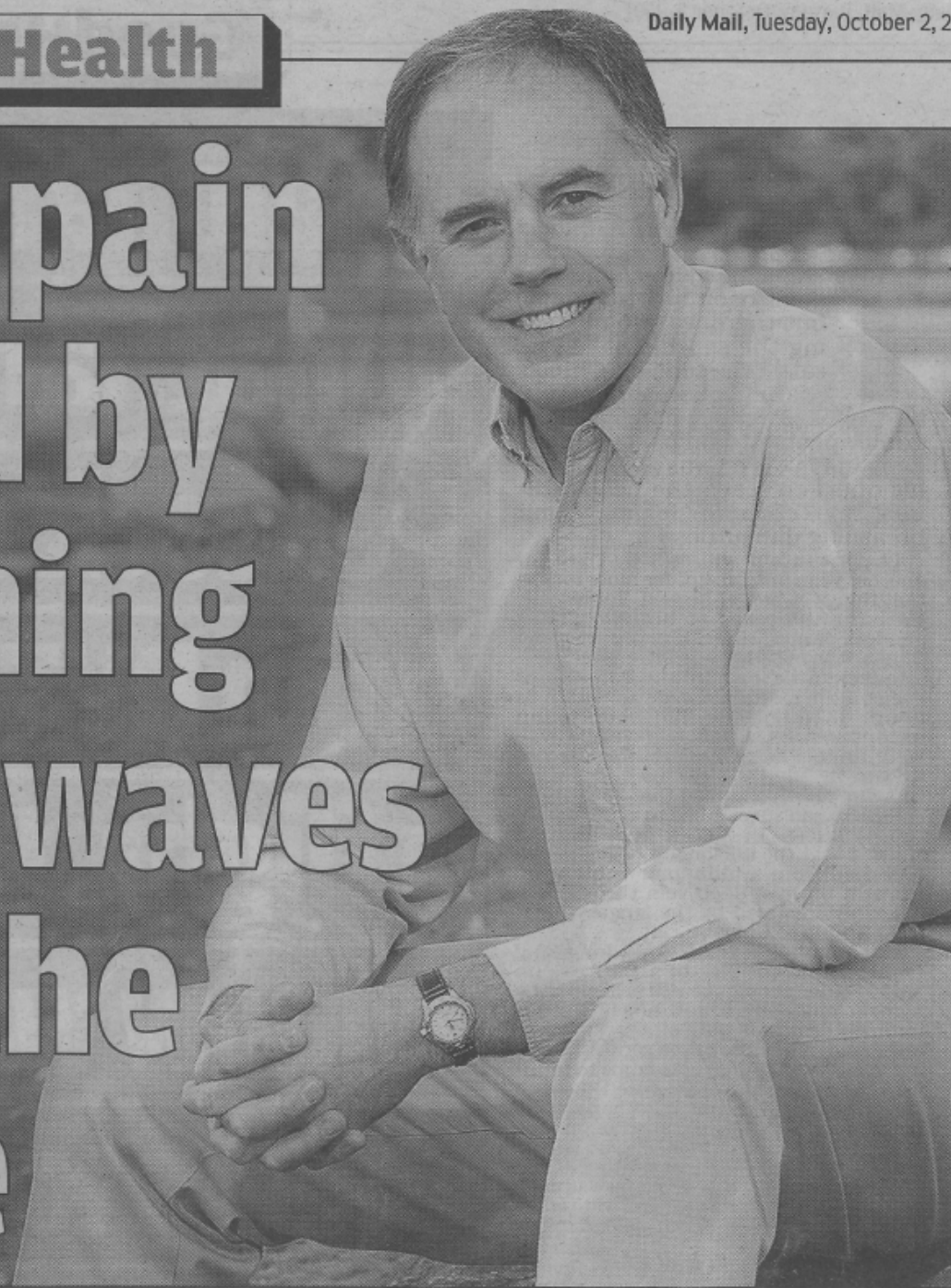
Then three years ago it became worse. Of course I had to give up squash, but even just doing the gardening or washing the car left me in excruciating pain; it was so bad when walking that I'd have to sit down every 15 minutes if I went shopping with my wife. Although I don't like taking painkillers, by then I was having paracetamol and ibuprofen every day.

I saw a chiropractor and a physio a few times — the chiropractor said my lower discs were compressed; he massaged and manipulated my back but it didn't do much. The physio thought it was my lower back muscles causing the trouble and gave me more exercises to strengthen them.

But the problem only got worse, so my GP referred me to an orthopaedic surgeon. An MRI scan showed that the bottom discs in my spine had become flattened. The discs are meant to work as shock absorbers but wear and tear over the years had basically compressed them.

It wasn't clear if this was actually causing my pain, or whether the problem

Back pain cured by beaming radio waves into the spine



was the facet joints in my spine. The facet joints join the vertebrae together, but allow you enough flexibility to bend and twist.

These joints can also deteriorate with age — the cartilage between the joints can become distorted, causing pain. The orthopaedic surgeon recommended steroid injections into the facet joints to calm down the inflammation.

Two weeks after the first injections, my back felt much better — the surgeon said this meant the problem was definitely in my facet joints, and not in the discs. But over the next few months the treatment wore off and I needed more injections.

This only kept the pain at bay for another six weeks; when I went back for a follow-up last November the surgeon said he felt the best way forward was facet coblation, using radio frequency energy to kill off the nerves in the facet joints causing the pain.

I was then referred to another consultant, Mr Alwyn Jones, who would do the procedure.

He explained it wouldn't necessarily be a permanent cure because there's a remote chance the nerves can re-grow years later — but there were few risks involved and I'd probably be able to postpone more serious surgery. When I came

ME AND MY OPERATION

FACET JOINT COBLATION

around after the operation, I felt a little stiff and tender around my back — but the pain had gone, and I was able to move relatively easily.

I took a couple of days off work but felt well enough to have gone to work the next day.

I've felt very good ever since — I still get the odd painful twinge but otherwise it's a 90 per cent improvement. Now I can go shopping without having to sit down all the time and cutting the grass doesn't hurt at all.

I've lived with back pain for so long but it's not until you get relief from it that you realise how bad it really was.

THE SURGEON

Mr ALWYN JONES, consultant spinal surgeon at Llandough Hospital, Cardiff, says:

SOMETIMES it can be quite easy to pinpoint the cause of back pain

— with a slipped disc, for instance, you can see the bulging disc on a scan; patients also may complain of sciatica or leg pain. But in other cases, it can be far harder to identify the cause.

With Mark, two of his lower discs had become flattened — this is a natural part of the ageing process; the facet joints were grinding on each other, which could also have been the cause.

The first line of treatment is always painkillers and if these become less effective as the back deteriorates, then steroid injections into the facet joints can be a great help.

Facet coblation kills off the sensory nerves that transmit the pain message to the brain. We heat the tissues to 40-70 degrees — enough to deaden the nerve but relatively cool in comparison to older techniques. The advantage with coblation is that it causes less damage to surrounding tissues.

There is also a 70 per cent chance of sorting out leg pain and an 80 per cent chance of getting rid of back pain. The alternative is spinal fusion, where we weld together the vertebrae responsible for the pain.

However, most patients and surgeons regard this as a last resort as it impedes the movement of the

spine. Besides that, it doesn't always resolve the facet joint pain, and I think it is sensible to try the lower-risk alternatives first.

Facet coblation is carried out with the patient under sedation and lying on their front. Using X-ray image guidance — which tracks the operation and beams the pictures to a screen — I identify the facet joints that need treating.

First a local anaesthetic is injected into the skin and then a large needle is passed through the skin into the spine, two or three inches under the skin's surface.

The coblation needle sits inside the first needle; pressing a button pushes the coblation needle out of the bigger needle, so it extends this by about 5mm.

When this fine needle is switched on it transmits low heat radio frequency waves; these are used to blitz a small area on the outer border of the facet joints where the tiny nerves enter.

The facet joints are in pairs — one on either side of the spinal column — and usually the problem is on both sides, so when we have done one side, we will do exactly the same to the joint on the other.

No stitches are necessary, because all we have done is make tiny pinpricks. We just place dress-

ings on the skin which will heal beautifully.

Patients are then taken to the recovery room where they can sleep off the effects of sedation for a few hours.

Because we have made no structural alterations to the back, there is nothing to prevent patients from doing what they feel able to. I advise them to increase their activity levels as much as they are comfortable with.

Some patients will notice an immediate improvement in their back pain while for others, the pain may not subside for a month or so. Up to 75 per cent of patients are still improved after two years.

With this technique, there is a chance that the nerves could re-grow and cause pain years down the line. The other risks — infection or nerve injury — are very small.

The procedure is available on the NHS but at present is carried out in only a few specialist spinal units around the country. I think it will become more widely available as people start to recognise the pros against the very few cons.

■ **FACET coblation costs the NHS approximately £1,500. Privately, it costs about £3,000.**