New hope for advanced prostate cancer patients

Targeted radionuclide therapy that seeks and destroys prostate cancer cells without damaging surrounding cells has arrived in the UK, offering new hope to men with advanced metastatic disease.

A highly targeted treatment for metastatic, hormone-resistant prostate cancer has opened up a new avenue of treatment for men previously facing a devastating prognosis. It finds and destroys tumour cells anywhere in the body while sparing surrounding organs and tissue, but, until now, it has not been available in the UK.

We talk to the doctor and patient creating hope and making history with Theranostics 177Lutetium PSMA therapy.

Hans’s life with metastatic prostate cancer

By the time entrepreneur, Hans Shaupp, discovered he had prostate cancer, he had metastasized, or spread, to his bones and liver. That was seven years ago, and since then he has endured a slew of treatments. But the disease keeps coming back.

On May 25, he became the first person in the UK to start 177Lutetium PSMA therapy, and while it’s early days, Hans is feeling positive. “When I was first diagnosed, I was so depressed,” he said, adding he had asked for a prostate-specific antigen (PSA) test as part of an “overall health MoT.” PSA is an indicator of prostate cancer activity which is measured by way of a simple blood test. Changes in activity of the cancer, either reduction or growth are generally seen in a corresponding reduction or increase in the PSA value detected in the blood test.

Like most men with prostate cancer, his PSA levels were higher than average, and he was referred to an oncologist. Hans says: “I went through the mill with the normal treatment and had the hormone therapy, I was extremely upset. A side effect of the treatment is you lose your libido, and then there’s the worry of the illness. I was quite depressed.”

I’ve now had two infusions and I feel fine. I’ve had no side effects, I’m working, I’m not tired. If I didn’t know any better, I’d say there was nothing wrong with me.”

Frequently fainting from a slew of drugs and chemotherapy

After two years, Hans’s PSA started rising again and he was switched to another drug. After another two years, that stopped working, too, and he was advised to try chemotherapy.

Hans had nine cycles of docetaxel, during which he lost his hair and sense of taste, and frequently fainted. Yet despite the “barbaric” treatment, within six months his PSA levels were elevated once again.

Hans feels “really positive” about his new therapy

His oncologists then told Hans about 177Lutetium therapy, but he still had to undergo another round of chemotherapy while he waited for it to arrive in the country — which it did earlier this year.

He said: “I’ve now had two infusions and I feel fine. I’ve had no side effects, I’m working, I’m not tired. If I didn’t know any better, I’d say there was nothing wrong with me.

“Of course, the decision will be what’s happening to the tumours, but I feel really positive about it.”

While he understands the treatment is palliative rather than curative, Hans, 77, said it was his last hope. “If this option wasn’t there, I don’t know what I’d do,” he says.

Life expectancy can be just 18 months or fewer

Dr Yong Du, Clinical Director of Nuclear Medicine and Theranostics at GenesisCare, says Hans’s story isn’t unique.

“Gradually, some prostate cancer patients exhaust all other treatments and the life expectancy for that group is only one to two-and-a-half years. It’s dreadful.

“As the tumour progresses, people are in a lot of pain, both emotionally and physically,” he says, adding that the treatments themselves can have a huge impact on quality of life.

But because theranostics is so targeted, it comes with minimal side effects. And it’s effective. A study in Australia found more than 60% of patients recorded a 50% or more decrease in PSA.

How does it work?

The protein prostate-specific membrane antigen (PSMA) is found on the surface of prostate gland cells. If the cancer has metastasized to other parts of the body, PSMA will be on the surface of these cells, too.

The therapy takes molecules that attach to PSMA receptors on cancer cells and binds them to the radioactive substance, 177Lutetium. The molecule then carries the 177Lutetium straight to the tumour site, where it destroys prostate cancer cells with minimal damage to healthy cells.

The treatment is given intravenously every six to eight weeks, and patients will need a blood test every two weeks. Treatment is personalised according to response and symptoms and normally involves four treatments.

Sponsored by

GenesisCare’s prostate cancer program in the UK which includes high quality conventional and novel therapies, diagnostics and world leading technologies such as the MR Linac, represents significant and exciting moves forward in the treatment of prostate cancer.