

By MARTYN HALLE

LIGHT is being used to defeat lung cancer — one of the most difficult of all cancers to treat. The treatment uses a blue light to diagnose the condition at its earliest stages and red laser light to kill the tumours.

Doctors believe the process, which does away with the need to operate, marks a new era for the diagnosis and treatment of lung cancer — and for Yusef Hussain, 70, the treatment has been life-saving.

A heavy smoker, he had been feeling weak and losing weight for nearly a year when he was referred to a chest specialist at his local hospital in Southend, Essex.

His wife Dr Bilquis Agar, a GP insisted there was something wrong with her husband although computed tomography (CAT) scans, which took detailed pictures of the inside of his body, and a bronchoscopy — a camera examination of his lungs — failed to find a feared cancer.

Doctors suspected time he spent in India and Pakistan might have led him to contract tuberculosis, so he was treated with antibiotics.

When he continued to lose weight, he was referred to Dr Jeremy George, a cancer expert at University College Hospital, London.

'It was only when I got to see Dr George that they detected my lung cancer in its very early stages,' says Mr Hussain. 'They did this by putting a camera into my lungs along with a blue light that can detect tumours.'

CAT scans and X-rays can't normally pick up early lung cancer — only the later-stage tumours.

BUT blue light shows up tumours, turning them red/mauve while surrounding healthy tissue is grey/blue. It's not clear why it works, though it may be due to abnormal blood flow through the tumour.

'I am incredibly fortunate to have been sent to Dr George because a lot of people with lung cancer are not picked up,' says Mr Hussain.

'I was told my lung function wasn't good enough for surgery and that removing a third of my lung could have been life-threatening.'

'Chemotherapy would merely contain the cancer, but not remove it. Dr George told me photodynamic therapy could be my only hope.'

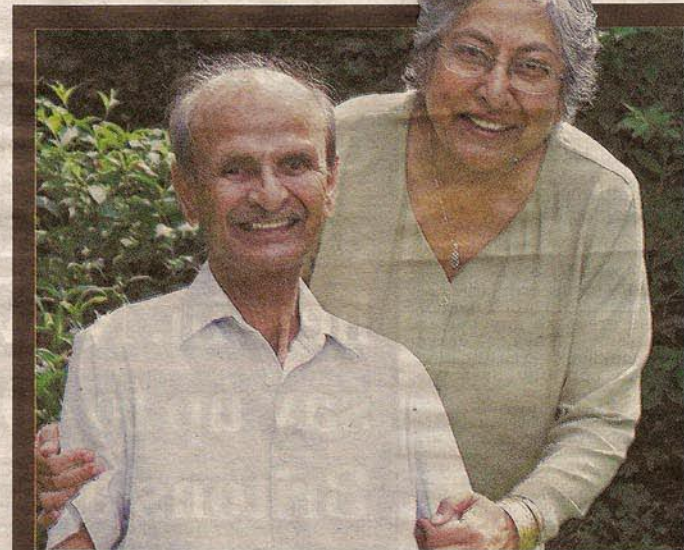
The tumour is injected with a light-sensitive dye then exposed to red laser light that triggers a toxic chemical reaction which destroys the tumour but leaves the surrounding tissue undamaged.

It has been performed on just a handful of patients at University College Hospital, but doctors there say it has huge potential in cases where the disease has been spotted at an early stage.

Mr Hussain, who had the procedure a year ago, could not believe how easy it was.

'When I woke up, I was told my cancer was no more. The whole procedure lasted only 45 minutes and I was able to go home the next day. I have been back for several check-ups and I am still in the clear.'

'The doctors are reasonably confident that the cancer won't come back, but they have told me I remain a cancer risk simply because I had smoked for so long. But I'm



Saved: Cancer victim Yusef Hussain, with his wife Dr Bilquis Agar

BEAM OF LIGHT THAT DESTROYS LUNG TUMOURS

just grateful that they found my cancer early and were able to get rid of all of the tumour.'

Lung cancer claims the lives of 30,000 patients a year in the UK because symptoms can be missed when the cancer is in its early stages.

Even when cancer is suspected, it is frequently diagnosed only when the tumour has spread beyond the lung.

As a result, only four in every 100 patients survive five years after treatment. In many cases of advanced disease, patients are dead within a year of diagnosis.

Last year photodynamic therapy was approved as a treatment for skin cancer, using a light sensitive cream, and it is used widely to treat macular degeneration, an eye condition that causes blindness in the elderly.

But it is not recognised as a

general cancer treatment by the NHS and so only a few health authorities will cover the cost of treatment. Most patients are treated through a charitable fund provided by University College Hospital.

PHOTODYNAMIC therapy has fantastic potential, but we haven't had the money to fund research to get established in this country,' says Dr George.

'Other consultants have used it very successfully on a variety of cancers but photodynamic therapy won't take off in the UK without support from the Department of Health and organisations like the Medical Research Council.'

Professor Stanley Brown, director of the Leeds Centre for Photobiology and Photo-

dynamic Therapy, says: 'Photodynamic therapy allows a targeted approach — it can be far less traumatic than surgery.'

'I think in the future it will be used far more to treat early cancer and pre-cancerous conditions, as better screening picks them up.'

He works with a team of top doctors who are developing photodynamic therapy for a range of cancers, including prostate, liver and head and neck cancers.

■ A CHARITY called Killing Cancer has been set up to raise funds for research and trials into photodynamic therapy. For more information visit www.killingcancer.co.uk or for patient inquiries email patient.killingcancer@virgin.net or call Cancer Backup on 0800 800 1234.