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Health

New techniques in medicine

Non-invasive anti-angina treatment

A new outpatient procedure can help intractable angina sufferers who have failed to respond to conventional treatment, by Judy Hobson

WHEN DOCTORS in the UK are confronted with patients suffering from intractable angina, many believe there is little they can do for them if the patients are already on the maximum medication and are unsuitable for surgery.

There are an estimated 50,000 people in the UK whose angina has failed to respond to conventional treatment. Not only are their daily lives blighted by pain, the slightest exertion also makes them breathless.

The good news is that there is a non-invasive outpatient treatment that can help them. Called Enhanced External Counterpulsation (EECP), it has been shown in studies to bring relief to between 75 and 80 per cent of sufferers. After a seven-week course of hourly treatments five days a week, patients report less frequent angina attacks – some none at all – increased energy and an improved quality of life.

Angina, the most common symptom of heart disease, occurs when the coronary arteries narrow and blood cannot get to the heart muscle fast enough, causing the pain.

Despite taking the maximum amount of medication or having had angioplasty and stents implanted, some people continue to suffer, and this is known as intractable or refractory angina.

EECP helps to reduce the number of their angina attacks by improving circulation. It works by increasing blood flow to the heart muscle while decreasing the amount of work the heart has to do to pump blood around the body.

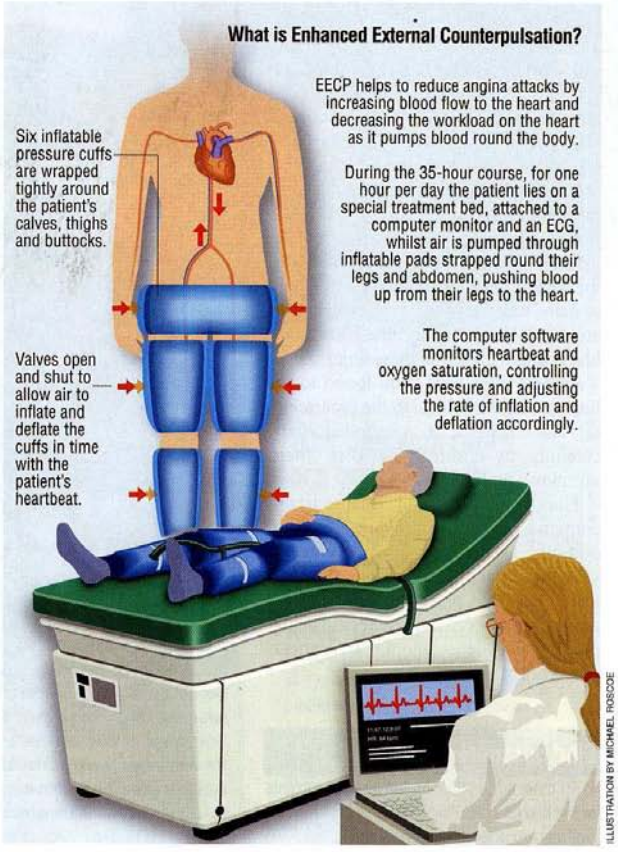
Patients lie on a special treatment bed attached to a computer monitor and an ECG. Three electrocardiogram electrodes are placed on their chest while six inflatable pressure cuffs are wrapped tightly around their calves, thighs and buttocks. Valves open and shut to allow air to inflate and deflate the cuffs in time with the patient's heartbeat.

During the heart's relaxation phase, the cuffs contract, pushing blood up from the legs. The pressure used is twice as hard as that experienced when a doctor puts a cuff around the top of your arm to measure blood pressure. As the pressure is applied, patients experience a rippling effect up their legs.

The patients, who are monitored by a nurse technician, can watch television or listen to music or simply fall asleep while the treatment is in progress. A little muscle or joint pain afterwards are the only side-effects reported.

EECP was developed in the United States in the Fifties, and since then it has been adapted and improved. The treatment was introduced into the UK by a Bradford GP, Dr Mendhy Khan, at the start of the new millennium. Dr Khan's father suffered from chronic refractory angina and despite various treatments his condition got worse. The Yorkshire GP read about EECP in a newspaper, did some research and took his father to New York for the treatment. He was so impressed by EECP that on his return Dr Khan helped to establish Vasogenics, the company that brought the technique to the UK.

Consultant cardiologist Dr Robin Roberts says: "EECP is for those for whom conventional therapies such as stents or drugs have failed. The treatment is very safe and has



a high success rate, with 80 per cent of patients experiencing a sustained improvement in their quality of life."

Dr Roberts of the Alexander House Clinic in Wimbledon, South London, and Dr Richard Fuller of the Dove Clinic in Twyford, near Winchester, are mounting an awareness campaign to ensure more medical colleagues start offering the treatment.

Currently it is estimated that only 300 to 400 patients in the UK get the treatment each year. This figure includes 150 to 200 NHS patients who receive it on a named patient basis as a result of 29 primary care trusts funding the treatment.

Dr Roberts believes his Wimbledon clinic is the only centre providing EECP in London. He says: "In the UK, there are only eight centres offering this treatment and most are in the North." These include Bradford, Hull, Liverpool and Barnsley.

Dr Roberts' father and father-in-law suffered from end-stage heart disease ten years ago at a time when EECP was not available in the UK. He says: "Almost all my patients are private because some local primary care trusts refuse to pay for it. EECP is another treatment subject to the postcode lottery."

Dr Fuller points out: "If a patient has interventions such as angioplasty or stents early in their history, as they grow older these therapies will often fail. We hope that when more doctors are aware of the treatment, more patients will be able to get it."

"Angina," Dr Roberts says, "is a progressive disease of the coronary arteries. Putting in a stent can open a short stretch of narrowing within the affected coronary artery but will do nothing for the rest of the body's circulation. While as a cardiologist I can accept that a localised narrowing in a single artery will benefit from a stent, it is not the be all and end all. EECP provides us with an alternative to further stenting and to bypass surgery. I believe it should be used much sooner in heart disease." Both want EECP to become a mainstream treatment for intractable angina and heart failure. Privately a course of EECP costs £9400. On the NHS it costs £8400.

Find out more

- For more information, see: (www.eecp.co.uk), tel: 01962 712226 and (www.vasogenics.com), tel: 01274 201689.

Sandra Ansley: Sold her house for treatment

"I feel as fit as I was 20 years ago"

Simply turning over in bed would bring on Sandra Ansley's angina, causing pain in her chest, neck, down her left arm and into her hand. The 60-year-old grandmother also had pain if she became worried or anxious about her family and, disturbingly, medication was no longer able to control her symptoms.

Twice, Sandra had massive angina attacks and was in such agony that her husband Nick had to call an ambulance and she was rushed to hospital, where she was given oxygen and her condition stabilised. At night in her bedroom a ceiling fan had to be on continuously, otherwise Sandra would suffer from breathlessness. She says: "Life was becoming impossible. My medication was failing and there was no surgical solution. I had microvascular angina, which means the blood vessels in my heart were too narrow for angioplasty."

Sandra was living in Leatherhead, where she worked as an accountant, when she started to feel unwell ten years ago. She was about to go on a long-haul flight to attend her son's wedding in Australia. In view of this, Sandra decided to see her GP, who suspected she had a heart murmur. With only three weeks to go to her flight, Sandra visited a private hospital to be checked out and learnt she had two leaky heart valves.

She was then referred to Dr Robin Roberts, a cardiologist then working at Queen Mary's Hospital, Roehampton, in 2002. By now Sandra was starting to experience strange pains in her chest and becoming breathless.

Dr Roberts sent her for an MRI scan which revealed the smaller blood vessels deep in her heart muscle between the two ventricles were blocked, and she was given a variety of pills to treat the condition.

Sandra says: "It got to the stage where I would get chest pains just turning over in bed or picking up my handbag off the floor. The pains would also come on if I was worried or anxious about my family. If I had a meeting at work, I would be in great discomfort. In the end I became so ill that I did most of my work from home."

When Dr Roberts told her about EECP, Sandra tried to get her primary care trust - East Elmbridge and Mid-Surrey - to fund her treatment, but it claimed EECP was only palliative and she had to use treatments available.

Sandra says: "The PCT completely ignored the fact that there isn't anything available for microvascular angina apart from EECP. I realised I couldn't go on and so Nick and I decided to sell our house and use some of the proceeds to pay for the treatment." In June 2006, Sandra began a five-week course of EECP - in the last two weeks her sessions were doubled to two hours a day.

Sandra says: "The treatment is a bit jerky but you soon get used to it. I would describe it as going to a gym for your heart.

Afterwards, with all the oxygen coursing around your body, you feel very exhilarated. An MRI scan just a month after I finished the treatment showed my condition had greatly improved.

"It is more than two-and-a-half years since I had EECP but the improvement has been ongoing. Today I feel as fit as I was 20 years ago."

Sandra, who has three grandchildren, adds: "If I hadn't had this treatment, I dread to think what might have happened. My daughter used to have to tell my grandchildren not to play too much with Nanny, which was heartbreaking." She only has one regret - that she did not have EECP sooner.