

Call to end animal pain-research

Using animals to research pain has "limited value" and should be replaced by newer technologies, argues a panel of medical experts from across England.

Animal tests can only simulate some aspects of chronic pain and are too simplistic, their report says.

With newer brain-imaging techniques, more studies could be done in humans, they write in the journal *Neuroimage*.

Ministers said at present "licensed animal use remains essential to develop improved healthcare technologies".

There are few effective and safe treatments for chronic pain, such as that suffered by people with osteoarthritis and fibromyalgia, the researchers from London, Manchester, Liverpool and Oxford say.

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Dr Gill Langley, Dr Hadwen Trust

Animal experiments are commonly used in pain research, both under anaesthesia and with conscious animals.

However, as well as raising ethical questions, they are not an accurate mimic of the processes of human pain, the experts concluded.

At a workshop organised by charities and organisations funding or promoting alternatives to animal experiments, such as the RSPCA and UK Human Tissues Bank, the experts said modern, powerful brain imaging had the potential to change how some experiments were done.

It means healthy volunteers and patients suffering from pain could take part in studies where researchers can monitor the effects of pain and pain relief in the brain using MRI or other scans.

Other research in the laboratory using human cells and tissues could support the work done in humans, they said.

'Not representative'

One of the authors of the report, Professor Qasim Aziz, from the Barts and the London School of Medicine and Dentistry, uses imaging to study how the brain interprets pain signals in patients suffering from disorders such as irritable bowel syndrome and unexplained chest pain.

"In my research, animal models don't represent human patients sufficiently well," he said.

"And that's a problem that extends across pain research as a whole.

"New and highly sophisticated brain-imaging technology is providing vital insights that animal research has failed to produce.

"I would like to see far greater uptake of these and other human-relevant approaches to pain research."

However, he added that there were instances where animal research was needed, such as in drug dose experiments.

Dr Gill Langley, of the Dr Hadwen Trust, a medical research charity set up to promote non-animal research techniques, also helped to write the report.

She said: "It is critical that these often simplistic experiments are replaced with more advanced techniques that don't involve inflicting animal suffering."

Home Office Minister Meg Hillier said under the terms of the Animals (Scientific Procedures) Act 1986, the use of animals for experimental and other scientific purposes can be authorised only when it is the only option and can be shown to be justified.

"Advances with non-animal test methods continue to be made, but at present licensed animal use remains essential to develop improved healthcare technologies."

Alan Silman, medical director of the Arthritis Research Campaign, agreed that animals were not good models of pain in humans.

"We lack really effective ways of studying pain which is why perhaps there has been no real advance in understanding why people with arthritis get pain."

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