

# Brain not cause of migraine

Landmark study shows that attacks originate outside the skull

BY KANINA FOSS

**P**ast beliefs about the causes of migraines have been blown out of the water by new research which proves that migraines don't originate in the brain.

The study, published in the latest edition of the neurological journal *Brain*, disproves the longstanding belief that migraines happen when arteries in the brain dilate.

Using the first non-invasive imaging technique, which can visualise even the smallest blood vessels, Dutch researchers were able to measure the blood flow and diameter of the arteries during a migraine. They detected no evidence of dilation.

The results of the study have large-scale implications for the treatment of patients.

For decades, migraine drugs have been specifically designed to act on the very arteries that have now been shown to have no association with migraine attacks.

"This is the reason that migraine drugs work so poorly," said Dr Elliot Shevel, founder and medical director of the Headache Clinic in Joburg.

"The medical and scientific community has clung blindly to this erroneous belief, without any proof, for almost half a century. So this is a stunning revelation. Millions of sufferers could now benefit if outdated science is discarded quickly and efficiently."

Proof that migraines originate in structures outside the skull is a "wonderful vindication" for Shevel and his team, who have been concentrating on extra-cranial treatment for the past 15 years. "We realised

a long time ago that it's not coming from inside the skull," Shevel said.

Structures outside the skull can be treated without medication.

If muscular tension is the cause, various methods can be used to relax the jaws and neck. If the pain is coming from arteries between the skull and scalp, they can be cauterised.

The study also has ramifications for the training of med-

ical students. "To understand the scale of this development, one must appreciate that teaching students that migraines originate in the arteries of the brain has recently, just in the last few months, been adopted by the entire American medical community as the sole explanation for the origin of migraines. So this new paper is going to have some very serious repercussions around the world," Shevel said.

He added that the revelation might take time to gain widespread acceptance.

"Stalwarts of the old theory who do not keep up to date with their duty to remain medically informed may continue, quite unethically, to propound what is now completely disproved. So I suppose we should expect a bit of a 'flat earth society' to develop for a while."

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