

Genome rich tapeworm makes way into man's brain

A tapeworm that usually infects dogs, frogs and cats has made its home inside a man's brain. Sequencing its genome showed that it contains around 10 times more DNA than any other tapeworm sequenced so far, which could explain its ability to invade many different species.

When a 50-year-old Chinese man was admitted to a UK hospital complaining of headaches, seizures, an altered sense of smell and memory flashbacks, his doctors were stumped. Tests for tuberculosis, syphilis, HIV and Lyme disease were negative, and although an MRI scan showed an abnormal region in the right side of his brain, a biopsy found inflammation, but no tumour.

Over the next four years, further MRIs recorded the abnormal region moving across the man's brain (see animation), until finally his doctors decided to operate. To their immense surprise, they pulled out a 1 centimetre-long ribbon-shaped worm.

It looked like a tapeworm, but was unlike any seen before in the UK, so a sample of its tissue was sent to Hayley Bennett and her colleagues at the Wellcome Trust Sanger Institute in Cambridge, UK.

Genetic sequencing identified it as [Spirometra erinaceieuropaei](#), a rare species of tapeworm found in China, South Korea, Japan and Thailand. Just 300 human infections have been reported since 1953, and not all of them in the brain.

Read full original article: [Huge genome helped frog tapeworm feast on man's brain](#)