Minocycline slows progress of Huntington's disease in mice

Abi Berger *BMJ*

The antibiotic minocycline seems to slow the progression of Huntington's disease in mice. Scientists at Brigham and Women's Hospital-Harvard Medical School in Boston have found that administering minocycline to mice with Huntington's disease resulted in a significant slowing of disease progression (*Nature Medicine* 2000;6:797-801).

Dr Robert Friedlander, a neurosurgeon, and his team decided to try minocycline (an antibiotic commonly used to treat acne and rheumatoid arthritis) after research published last year showed that mice treated with it both before and after the induction of stroke seemed to sustain less brain damage than mice that were not treated.

Minocycline is known to cross the blood-brain barrier, and it has been shown to inhibit the expression of the enzyme caspase-1 in brain damaged mice. Caspase-1 is involved in apoptosis (programmed cell death), which is an important mechanism in the pathogenesis of Huntington's disease. Dr Friedlander and his group showed last year that activated caspase-1 drives the progression of the disease in both humans and mice.

When the researchers administered minocycline to mice with the disease, progression was slowed and the mice lived 14% longer. Dr Friedlander says that in humans with the disease this might be equivalent to surviving for one to five years longer.

The researchers also observed that the disease could be slowed at an early stage, when there were few detectable symptoms. This implies that useful brain function, not just brain tissue, could be conserved. The team also found that caspase-1 expression was inhibited by 50% with minocycline treatment. The incidence of side effects with high doses of minocycline seemed to be greater in the mice with Huntington's disease than in the mice without the disease.

In conditions like Huntington's disease, where the brain undergoes a continuing insult, many pathogenic pathways are triggered simultaneously. Caspase-1 activation is just one of these pathways, so any successful treatment will probably need to address multiple pathways simultaneously. This differs from the situation in which there is a single insult, such as in brain injury or stroke.

"Minocycline might be just one of a combination of treatments that will eventually stop Huntington's disease, a bit like the cocktail of medications being used for HIV," says Dr Friedlander. □

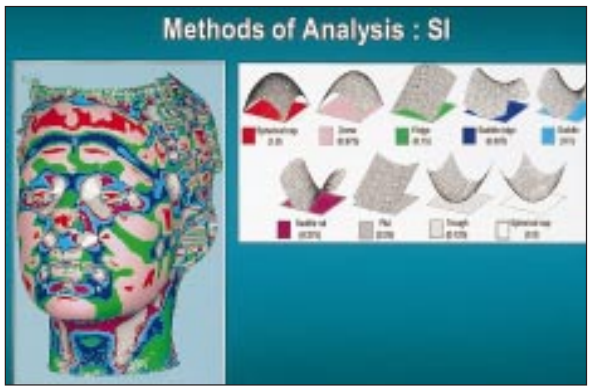
France bans morning after pill from schools

Alexandre Dorozynski *Paris*

France's Conseil constitutionnel, the country's highest administrative court, ruled last Friday that it was illegal for nurses to distribute NorLevo, a contraceptive used as a "morning after pill," to pregnant schoolgirls.

The French government reacted the same day by asking parliament to discuss new legislation to authorise nurses to provide this contraceptive, which did not exist in 1967 when legislation laid down that hormonal contraceptives could be delivered only on prescription or in a family planing centre.

In June last year, the ministry of health authorised the over the counter sale of NorLevo, which works as a classic hormonal contraceptive if taken within three days after intercourse. □



"Methods of analysis" (above) is part of an exhibit in the new £50m Wellcome wing of the Science Museum, opened last week by the Queen. It will form part of a section known as "Live Science," in which scientists will use the wing as a base for carrying out research. Professor David Hopkinson of University College London, who is looking at the genetics of facial features, will analyse the faces of visitors to the museum.

The wing also includes a 450 seat IMAX cinema and a suite of six specially created exhibitions covering key scientific topics, including genetics, digital technology, biomedicine and artificial intelligence. It aims to break down barriers between the public and the world of science by asking visitors for their opinions and feelings. Through art installations devised by some of the world's leading artists it also tries to make visitors look at science from a new perspective.

US court refutes Nebraska's antiabortion law

Fred Charatan *Florida*

In a 5-4 vote, the United States Supreme Court reaffirmed a woman's right to choose the safest method of abortion throughout pregnancy. It struck down Nebraska's law which bans "partial birth abortion" and, by extension, similar laws enacted by 30 other states (*BMJ* 1999;319:874, 1220).

The majority opinion, written by Justice Stephen Breyer, affirmed a lower court ruling overturning Nebraska's ban on the rarely used procedure dilatation and extraction, called "partial birth abortion" by antiabortion groups.

The court found the Nebraska law unconstitutional because in banning this procedure it placed women "at an unnecessary risk of tragic health consequences." It also found the language of the Nebraska law imprecise.

Justice Breyer said that all doctors using the method of dilatation and evacuation, which is more commonly used after the first trimester, "must fear prosecution, conviction, and imprisonment," making the law an "undue burden upon a woman's right to make an abortion decision."

Dr Frederick Hopkins, an obstetrician in San Diego, California, who also serves as an officer of Planned Parenthood, said, "There is no such thing as partial birth abortion. It is not in any medical text and there is no medical definition. Yet it is intimidating and frightening to think a doctor could have been prosecuted under such vague language. Now doctors and patients are safer."

Gloria Feldt, president of the Planned Parenthood Federation of America, said: "We are pleased with the court's affirmation of the right to abortion, but we in no way believe this is the end." She referred to continued attempts by state legislatures to outlaw specific medical procedures at any time during pregnancy. □