

Human Experiment Roils French Medicine

A test carried out on a brain-dead patient has prompted a debate over the ethics of such experimentation

A major controversy has broken out in France over the ethics of carrying out experiments on patients who are considered to be clinically dead—a judgment based primarily on the absence of any observed brain activity—but who have subsequently been kept in a deep coma by artificial means.

A prominent anesthesiologist has been suspended from his hospital responsibilities by the French Minister of Health, Michèle Barzach, after carrying out a series of experiments in which a potentially lethal dose of nitrous oxide was administered to such a patient, apparently without informing either the patient's family or the hospital's ethics committee.

The conduct of the anesthesiologist, Alain Milhaud, professor of anesthesiology at a teaching hospital in Amiens, has been strongly criticized by, among others, the National Council of the Order of Doctors. The president of the council, Louis René, last week described such an experiment as both "scientifically debatable" and "morally unacceptable."

Milhaud's action has, however, been defended by the National Association of Medical School Teachers. The association has claimed in an open letter to Barzach that Milhaud "was only carrying out his duty" as a research worker, and that experiments on the human body had always been a necessary element of medical progress.

"To prevent us from studying scientifically those in a *coma dépassé* [deep coma] would be as ill-advised for the progress of medicine as was the church's prohibition for many centuries on the dissection of corpses in order to learn anatomy," wrote the union's president, Jacques Perissat.

The experiment in question was revealed during testimony in a highly publicized trial in the central French town of Poitiers, where two young anesthetists and their superior faced charges stemming from the death of a 36-year-old woman patient who failed to revive after an uneventful operation for the removal of a facial tumor. It was discovered that two tubes leading from a respiratory machine were inverted, leading

to the hypothesis that for several minutes she had breathed pure nitrous oxide—rather than pure oxygen as intended—and that she had therefore died of asphyxiation. All three have been acquitted.

Much of the debate at the trial focused on the question of whether nitrous oxide was responsible for the patient's death. An expert witness mentioned that an independent experiment involving inhalation of pure nitrous oxide had been conducted on a brain-dead person. Both the prosecution and de-

The experiment was revealed during a highly publicized trial in an unrelated medical case.

fense expressed shock at the experiment and emphasized that they had no prior knowledge of it.

A videotape of the experiment had been provided to the expert by Milhaud, a pioneer in techniques aimed at prolonging the biological functioning of the bodies of individuals declared clinically dead. The experiment was conducted on a 24-year-old man who had been in a coma since a motor accident at the end of November. It was apparently carried out with the sole purpose of discovering whether the inhalation of pure nitrous oxide necessarily led to a cyanosis (blue discoloration) of the skin, which had not been observed in the dead patient's case.

A local health committee in Amiens investigated Milhaud and Health Minister Barzach subsequently announced that he has been suspended. Barzach said in a statement that facts which had been "unambiguously established"—including a lack of consultation with the patient's family—were such that she had demanded the case be investigated by a public prosecutor.

The techniques developed by Milhaud have been used to maintain organs for potential transplants and he is therefore ac-

knowledgeed to have made a substantial contribution to the development of organ transplant surgery in France. He is also an outspoken supporter of the view that such bodies should, where appropriate, be kept artificially alive for a sufficient period of time to allow them to be used as the subject of scientific experimentation. Milhaud has used this argument in the past to oppose the practice of euthanasia.

Milhaud has made no detailed public comment on the accusations against him. But last week he published a "scientific testament" in a medical newspaper in which he stated firmly his conviction that such experiments should be accepted by the medical profession, even though they could not be considered in any way as leading directly toward improved "treatment" either of the patient or (as would be the case in organ transplantation) of another individual.

The experiment received immediate and widespread condemnation from large sectors of both the medical and religious communities in France. Several prominent anesthesiologists have, in particular, criticized the fact that the experiment was carried out without a precise experimental protocol, and with any indication that the results of a single experiment were likely to carry any scientific significance.

Even President François Mitterrand, opening an exhibition in Paris of medical prosthetics, referred obliquely to the case in stating that "we must never forget that the human being is not an instrument," and that "neither the search for the truth, nor scientific progress, should be allowed to challenge this basic value of civilization."

At the same time, Milhaud has received guarded support from several members of the medical research community, who accept his argument that experiments on individuals certified as clinically dead are little different from those carried out on corpses. The main problem, many suggest, is that no adequate ethical framework for such experiments has yet been established.

A comparable dilemma is facing legal authorities in Amiens. The parents of the patient—who had previously been kept "alive" by Milhaud for several weeks after his brain death but was considered unfit as an organ donor because of a brain infection—last week announced that they were bringing charges of assault against Milhaud. (The patient died recently from causes apparently unrelated to the experiment.)

French legal authorities, however, point out that the only crimes which, according to the statute book, can be committed against a corpse relate to illegal removal from a cemetery or concealment after a homicide. ■

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