## GAO and DOD Get Into a Cat Fight

On the eve of war in the Persian Gulf, a neurosurgeon's research on head wounds is derailed by animal rights

AMONG THE AMERICAN SOLDIERS STATIONED in the Persian Gulf is Colonel Michael Carey, a reservist who may be trading a battlefront at home for one in the desert. Carey, a neurosurgeon at Louisiana State University (LSU), has been in a prolonged skirmish over his research, which he says is the only scientific work in the world using an animal model to study the kind of brain wounds soldiers get in combat. And that's of direct concern now—since head wounds cause half of all single-wound deaths in combat, and there's been no improvement in the postoperative recovery rate since World War II.

But thanks to the animal rights movement, American soldiers in the Gulf won't be getting the benefit of Carey's most recent work. That work involves shooting anesthetized cats in the head—about 125 a year—and protests by animal rights groups have brought his studies to a standstill. In November 1989, Congress suspended Carey's Department of Defense funding pending the outcome of a General Accounting Office (GAO) review. And now that the GAO report is out, medical groups are accusing the agency of bias, claiming it downplayed the opinions of its own scientific panel, which recommended continuation of Carey's work.

Carey, who got interested in head injuries as a MASH surgeon in Vietnam, argues that his experiments are crucial for improving survival and recovery from missile-induced (gunshot, shrapnel, and so on) brain wounds. Those results don't apply just to soldiers: 16,000 people die in the United States each year from gunshot wounds to the head. Yet, says Carey, "fewer than 30 papers in the literature worldwide have ever been written on the use of anesthetized animals to study brain wounds."

Almost a quarter of those publications come from Carey's team at LSU. Among other results, he says, his team has found the importance of protecting the brain's breathing center even when the wound does not appear to be severe. They have also been testing a drug that may reduce long-term damage to higher cortical functions.

Animal rights activists, however, argue that the research is redundant, antiquated, and cruel. Since 1988, they have been subjecting Carey to hate mail, threatening phone calls,



**Head shot**. Michael Carey is "enraged" that his research has been stopped.

and demonstrations. Now, he says, "we are dead in the water." His research, budgeted at \$350,000 annually, has been on hold since Congress cut off the funds at the behest of Louisiana Representative Bob Livingston (R).

The GAO review, published in December, has not made the controversy vanish. The GAO appointed a science panel headed by John A. Jane, chairman of the Department of Neurosurgery at the University of Virginia; the panel included eight neurosurgeons and other experts. Seven, including a veterinarian and an anesthesiologist, supported continuation of the research.

In their report, published as part of the GAO document, they called Carey's research goals "valid," and his experimental model "unique and suitable." They said the experiments involved no pain, and that post operative care appeared to be adequate. However, individual panelists, in comments made 3 months before they met as group, did express concerns about Carey's productivity, postoperative care, and the use of anesthetics.

The GAO didn't simply accept the recommendation of the scientific panel with its caveats. Instead they solicited comments from five veterinary anesthesiologists. Those five said there was inadequate reporting on animal care and on the research results, and criticized regulation of the anesthetic: if the dose is not precisely controlled, they said, it would be difficult to distinguish the effects of the wound from the effects of anesthesia. In the end, the GAO made no formal recommendation, leaving the decision up to DOD.

At a press conference in Washington, D.C., last month, critics of the GAO study, including the American Medical Association, charged that the report was prejudiced because it deemphasized the findings of the scientific panel in favor of the negative comments from the veterinarians. But GAO denies that charge. GAO investigator Susan Kladiva says the veterinarians were merely consulted to elaborate on the "areas of concern" mentioned by the scientific panel namely anesthesia and post operative care.

Panel chairman Jane, however, says that the veterinarians had no experience with brain trauma or missile wounds and contends the panel's review was "vastly superior." He adds: "Our concerns could have been answered had he [Carey] been present" at the panel's meeting. Panel members only reviewed materials supplied by the agency—they were given no opportunity to talk with Carey. Says Jane: "I think what they [the GAO] did was take our report, which they didn't like, and try to get other people to express concerns."

Kladiva of GAO responds: "We were not taking the word of veterinarians over medical experts." Rather, she says, GAO thought further specialists were needed to explore areas for which "we did not have the expertise on the medical expert panel." GAO officials say it was "not unusual" for the panel not to meet with Carey, since GAO was conducting its own investigation, which included three visits to Carey's lab.

Jane's panel wasn't the only scientific body to give Carey's work (already peer reviewed through DOD) the stamp of approval. As the 2-year GAO investigation spun on, an LSU committee, an Army investigatory team, and the American Association of Neurologic Surgeons, as well as three anesthesia experts to whom Carey sent his papers for opinions, all said they favored the research.

The Army, which has called Carey's research "vital and valuable," will be legally free to restore funding next month after the GAO report has been reviewed by congressional appropriations committees. Nevertheless, Carey and others fear that his work will become a permanent casualty of the animal rights movement, as has happened with other DOD studies.

Carey says he is "absolutely flabbergasted" at the way the issue has been handled. "My research is the only research designed to help young kids with brain wounds, and I am enraged that [Livingston] has stopped it . . . They've made this so politically sensitive now that everyone's afraid to touch it."

CONSTANCE HOLDEN