

Air Force Challenged on Sickle Trait Policy

Class action suit filed by aspiring pilot expelled from academy because he carries sickle cell trait

The expulsion of a black man from the Air Force Academy in Colorado Springs, on the grounds that he is a bearer of the sickle cell trait, could lead to a reevaluation of the armed services' policy toward such individuals.

Stephen Pullens, 20, a championship athlete from Minneapolis, passed the pilot qualifying exam and was admitted to the Air Force Academy in 1979. But a week after he began courses at the Academy's preparatory school in July of that year, he was expelled, along with five other blacks, on the grounds that his health might be endangered by the strains of rigorous training at the altitude of the academy, which is some 7000 feet above sea level. Pullens was told he "might die" if he stayed at the Academy and was assigned an escort to make sure he did not talk about his case.

Pullens, whose lifelong ambition has been to be an Air Force pilot, was told by Air Force legal officers that there was no way to appeal the decision, so with the aid of Minneapolis lawyer George Morrow he has filed a class-action suit against the Air Force in the U.S. District Court in Minneapolis. Morrow says the suit may be expanded to cover all the armed services.

The question at issue is the degree to which the sickle cell trait constitutes a health risk. Persons with sickle cell disease, where a mutant gene is inherited from both parents, are susceptible to sickle cell crises, where distortion of red blood cells from loss of oxygen blocks blood flow to vital organs. But evidence of significant health complications among trait carriers (those with only one mutant gene) comes from retrospective analysis of data and is regarded as dubious by many researchers.

But the armed services are playing it safe, and critics allege they are playing safe to the point of absurdity. The policy throughout the armed services is that no one with the sickle cell trait is allowed to be on a flight crew. The Air Force Academy goes even further, denying admission to those with the trait.

According to a spokeswoman in the Air Force Surgeon General's office, these policies are based on experience with several cases of alleged sickle cell

crises, as well as the recommendations of a 1973 report by the National Academy of Sciences (NAS) on S hemoglobinopathies (sickle cell and related abnormalities) in the armed forces. The committee, headed by Robert F. Murray, medical geneticist at Howard University, concluded that there was no reason to exclude trait carriers from hazardous duties. "Except for pilots and copilots, persons with sickle cell trait should not be restricted from flight duty," says the report. The report cites several instances in which black recruits have collapsed or died suddenly and inexplicably during training, but in no case could a positive relationship be established with the sickle cell trait. A finding of sickled cells at autopsy does not signify anything because the phenomenon is caused by lack of oxygen and the sickling could occur after death.

The Air Force Academy formed its new policy on sickle cell trait carriers after the 1972 collapse of two black pilot trainees following strenuous exercise. Murray says the two cadets had viral infections at the time. He says Air Force doctors ascribed the breakdowns to the sickle trait because they could find no other cause—even though no sickle cells were found in blood smears.

Murray says that studies, including one of black athletes who performed in the Olympics in Mexico City in 1968, have so far failed to show that high altitudes and strenuous exercise increase the risk of a sickle cell crisis among those who carry the trait. Yet, he says, "every time a black athlete collapses and he has the trait they blame the collapse on the trait."

Murray says that despite an Air Force policy restricting trait carriers that dates from World War II, there have been many black pilots carrying the trait who have performed without incident in both World War II and the Korean War. He cites a survey conducted last year by Col. Vance H. Marchbanks, a black flight surgeon in World War II, of 154 surviving black pilots. Ten of these were found to have the trait but none experienced problems that might be related to it.

Both to Murray and to Pullens' lawyer, Morrow, the restrictions on sickle

cell trait carriers in the armed services—they are not allowed submarine or frogman duty either—have the unpleasant look of a policy designed to restrict opportunities for blacks. Morrow finds it noteworthy that civilian pilots do not have the same restrictions, as the Federal Aviation Administration routinely certifies pilots with the trait for altitudes above 7000 feet. (In a letter to Morrow the Air Force explained that "the operating environment of the civilian aircraft must be considered.") Morrow said he initially thought the problem was limited to the Air Force Academy, but "I've started hearing from what must be virtually every black pilot in the armed services." One, for example, was a helicopter pilot with 1000 hours of flight experience who was grounded after it was learned he had the trait. (He was subsequently reinstated.)

The 1973 NAS report said that, despite numerous episodes where the sickle cell trait was blamed, the spleen and kidney are the only organs for which the relationship between sickle cell disease and the trait is well established. It recommended a large-scale prospective study to determine, among other things, what factors combined with the trait would put an individual at an increased risk to health. Such a study is yet to be conducted.

A major obstacle is that there is no laboratory test available to identify sickle cell trait bearers who might be at risk. Blood cells can be subjected to oxygen deprivation to see if they sickle, but the result does not necessarily predict what would happen in a real-life situation. The Air Force spokeswoman says the Air Force has solicited a proposal for such a test and has been pressuring the Department of Defense to do something about it.

Morrow says that as far as he knows this is the first instance where the armed services' policy toward sickle cell trait bearers has been taken to court. At the very least, it may be expected that the case will put added pressure on the Defense Department to come up with some definitive evidence on the risk, if any, posed by the sickle cell trait.

—CONSTANCE HOLDEN