

Agent Orange

Survey spells out hazards

Washington

EXPOSURE to dioxin-contaminated herbicides does not seem to have caused any unusual health problems in 85,000 veterans of the Vietnam war studied by scientists at the Veterans Administration (VA). In a paper presented at the American Chemical Society meeting here earlier this week, Dr Alvin Young said that the "wide variety of health problems" that do appear in the group are typical of a male population that is growing older.

Earlier this summer, the Air Force released preliminary findings of an epidemiological study of 1,200 veterans who handled the herbicides daily in Vietnam; no excess mortality was found in this group as compared with a group of similar veterans who did not handle herbicides. Results of the more significant morbidity study of the group are to be released in October.

Although the VA survey might have detected especially serious and widespread effects of herbicide exposure, it is not a very sensitive study. The 85,000 subjects were a "self-selected" group, veterans who presented themselves at VA hospitals with complaints that they attributed to possible exposure to herbicides in Vietnam. But fully three-quarters of the patients said they did not know if they had in fact been exposed; thus any problems actually appearing in exposed veterans would probably be statistically diluted in such a survey. The only disorder that was more common among the group than in a reference population of US males of similar age distribution was lym-

phomas; 20 cases appeared in the veterans group, compared with an expected 15 — a "barely" statistically significant difference, Young said.

Young also reported that a small number of analyses of adipose tissue samples (33 subjects) showed detectable amounts of dioxin in about half of both exposed veterans and non-exposed veterans. Most of the detectable levels were in the 5–15 parts per 10^{12} range; the highest concentration, in one exposed veteran, was 100 parts per 10^{12} .

VA is checking 550 human adipose tissue samples on file at the Environmental Protection Agency in an effort to determine the background level of dioxin in the US population. Dioxin (specifically 2,3,7,8-tetrachlorodibenzo-*p*-dioxin) is an essential contaminant of the herbicide 2,4,5-T, which was widely used on farms and ranches in the United States until the 1970s, and which, as a component of Agent Orange was heavily applied to forests in Vietnam in the US defoliation campaign designed to deny cover for the enemy.

The morbidity results of the Air Force epidemiological study should provide the first substantial evidence for or against claims of chronic injury associated with dioxin exposure in veterans. Veterans have filed over 17,000 claims for disability compensation with VA in connection with Agent Orange exposure which the government has so far refused to pay, arguing that only chloracne — a skin rash — has been conclusively associated with dioxin. A

much larger epidemiological study of 30,000 veterans, which will provide more definitive answers, has been slow to get under way; pressure from veterans and veterans' groups such as the American Legion, which expressed doubts about VA's objectivity, led to this study being transferred from VA to the Centers for Disease Control early this year. The results are not expected before 1987.

Stephen Budiansky

Medicine

BMA at fringes

THE British Medical Association (BMA) has taken a tentative step towards acknowledging the validity of some unorthodox medical therapies by setting up a group to consider the feasibility of assessing their value. The group has asked for information on the types of therapy being offered and their practitioners' theories about how they may work.

Alternative medicine has been flourishing in Britain in recent years and the Prince of Wales, ex-president of BMA, recently argued that physicians should be more willing to consider the possible value of unconventional approaches to therapy. Moreover, a small poll published in BMA's *British Medical Journal* last month found strikingly favourable attitudes towards alternative therapies among a sample of 100 young general practitioners. More than half of the 86 respondents believed that acupuncture, hypnosis or homoeopathy could be useful methods of therapy. Eighty per cent wished to train in at least one of the alternative therapies listed, and more than 20 per cent already used one.

Commenting on the study, Dr Tony Smith, deputy editor of the *British Medical Journal*, said that doctors should be able to tell patients which alternative therapies have been evaluated by objective tests and which have not, applying the same standards as would be applied to new drugs. However, Professor James Payne of the Department of Anaesthetics at London Hospital Medical College and chairman of the BMA's investigating group, points out that many advances in medicine were made before the advent of the double-blind controlled trial. He believes other criteria might be more appropriate for some therapies.

There are few restrictions on the types of therapy a physician may offer in Britain, although guidelines issued by the General Medical Council, the profession's governing body, make it clear that a doctor carries the responsibility for his patient if he refers a case to a practitioner who is not medically qualified. The BMA does not have an explicit policy on alternative therapies but if first the association's board of science and education and then BMA itself accept the investigating group's report, a register of approved therapies might result.

Tim Beardsley



The Zoological Society of London has expressed alarm at the possible consequences of the war in Northern Chad to the animal populations in the area. As well as the inevitable human casualties, two endangered antelope species are likely to suffer — the scimitar horned oryx and the addax. The last survivors in the wild are found around the border between Chad and Nigeria. A herd of scimitar horned oryx is established at Marwell Zoological Park in Hampshire and there are plans to restock the wild habitat.