Commentary: Adding to our comprehension of Gulf War health questions

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The findings of the study published in this edition of the Journal by Gackstetter et al., provides a valuable addition to our understanding of the health questions that arose after the 1991 Gulf War. Nearly all medical research on these questions has been conducted on the 750,000 troops deployed from the United States, the United Kingdom, Canada, and Australia, with little research conducted among local populations of the Arabian Gulf region. However, the inhabitants of this region are an ideal group for study because they endured health threats similar to those of the Western military personnel and often for much longer periods of time.

The study by Gackstetter and colleagues evaluated the hospital experience of Saudi Arabian National Guard soldiers during the 9 year period between the end of the war in 1991 and 1999. Two groups were compared: 8342 soldiers exposed to combat on the Kuwait–Saudi Arabia border and 7270 soldiers stationed 300 miles south of the actual fighting in the Saudi Arabian Capitol of Riyadh. A small increase in risk of hospitalization was found among combat-exposed troops (risk ratio = 1.8) but no unusual patterns of illnesses were observed. These results suggest that the health of troops native to the Gulf region was not severely affected by any particular disease due to service in the war zone.

The findings of this study are consistent with studies conducted on Western military personnel. Multiple studies have consistently shown that Gulf War veterans in the United States, the United Kingdom, Canada, and Australia report more symptoms and health problems than similar groups of military personnel. However, the hospitalization experience of Gulf War veterans has not been unusual, and clinical studies of over 100,000 Gulf war veterans have not identified a singular cause for reported health problems.

Some studies have shown a possible neurological basis for difficult-to-explain symptoms among Gulf War veterans—the postulated ‘Gulf War syndrome.’ Neurological abnormalities have been attributed to exposure to organophosphate pesticides and chemical warfare agents and to the drug pyridostigmine bromide, which was used among some Coalition troops as a pre-treatment against exposure to chemical warfare agents. In response to these studies, the Secretary of the United States Department of Veterans Affairs (VA) has recently committed 15 million dollars to new Gulf War research funding to continue the study of health problems of Gulf War veterans. These funds are in addition to the estimated 242 million dollars that has been spent since 1991 on Gulf War related research in the United States.

Besides exposure to organophosphate chemicals, other exposures have been indicated as possible causes of health problems among Gulf War veterans, including oil well fire smoke, multiple vaccinations, endemic infectious diseases like leishmaniasis, and depleted uranium (DU) contained in munitions used by Coalition forces. None of these possible health threats has been demonstrated to have caused widespread health problems among veterans of the 1991 Gulf War.

There have been numerous media reports that have attributed cancer and birth defects in southern Iraq to exposure to DU munitions used against Iraqi troops during the war. No systematic investigation has been conducted to confirm this potential health risk. However, several studies have concluded that DU was not a health risk for Gulf War troops unless a veteran was actually wounded by DU shrapnel; DU was mainly expended in unpopulated desert regions and not in urban areas, and DU was not a health threat in the Balkans where it was also utilized.

It is noteworthy that adverse health effects have not been identified in all studies of Gulf War veterans. The mortality experience of the 697,000 US troops deployed in the Gulf has been nearly equivalent to non-deployed military personnel for the first 10 years after the war. Compared with demographics similar civilian populations, the mortality rate of US Gulf War veterans has actually been favourable, less than one-half that of non-military controls. The mortality experience of Gulf War veterans from the United Kingdom has also been favourable compared with the civilian population.

Progress in the understanding of the health problems of Gulf War veterans has been agonizingly slow over the last 14 years.
Nevertheless, we probably know more about the health of Gulf War veterans than we do about any other military population. This study of Saudi National Guardsmen will further add to our knowledge of Gulf War health risks. Additional research is in progress on account of an increase in funding by the US government, which will help answer questions about the nature and causes of difficult-to-explain symptoms among Gulf War veterans.

Until research provides more answers for the causes of health problems among Gulf War veterans, health care, effective treatments, and disability compensation are available for these veterans. Special clinical registries have been developed by the US Department of Veterans Affairs and Defense and by the British and Canadian Ministry of Defense. Over 100,000 Gulf War veterans have received a systematic clinical examination through these clinical registry programmes. Veterans evaluated from three countries have been diagnosed with a wide variety of well-known health problems and no single type of illness predominated. For Gulf War and other veterans who are found to have debilitating symptoms that cannot be readily explained, special Clinical Practice Guidelines for unexplained pain and fatigue have been developed in the USA. The US Department of Veterans Affairs has also established two War Related Illness and Injury Study Centers, or ‘WRIISCs,’ at the Washington, DC, and East Orange, NJ, VA medical centres. These centres conduct research and provide specialized health care for combat veterans who experience difficult-to-diagnose but disabling illnesses. Importantly, cognitive-behavioural therapy has been found to benefit Gulf War veterans with unexplained symptoms. This therapy consists mainly of lifestyle changes, including behavioural interventions to improve general health and coping skills, educational approaches to improve patient’s understanding and perception of health, and graduated exercise programmes.

It is important to bear in mind that unusual ‘war syndromes’ have been a recurrent problem after every major, modern war. The type of questions being asked about the health effects of the 1991 Gulf War are not new. These questions have been the focus of clinical care and research since the 19th century because of a deep concern about the health and welfare of the men and women who fight our wars. Society appropriately feels an obligation to provide good health care and adequate assistance to the veterans who have risked their lives for their country.

References