Lesson of the week

Post-traumatic stress disorder following military combat or peace keeping

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Psychological or somatic dysfunction after military conflict may hide post-traumatic stress disorder

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Trauma related to military service is not only physical. Since the American civil war it has been recognised that a proportion of veterans have symptoms but few physical signs.[1] Conflicts and peacekeeping tours potentially carry long term psychiatric consequences. There is a strong concordance between symptoms after conflict regardless of the conflict.[1] Histories of physical symptoms would be similar if taken from veterans of any of the 20th century conflicts. In the Gulf Veterans' Medical Assessment Programme we continue to recognise new cases of post-traumatic stress disorder.[2] We present four histories of people who served in the Gulf during the conflict. All patients were provisionally diagnosed by RG and the diagnoses confirmed by consultant psychiatrists.

Usually the diagnosis is not difficult, and its initial recognition is within the ability of all medical practitioners. According to the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (DSM-IV),[3] initiation of post-traumatic stress disorder comprises experiencing, witnessing, or being confronted with a catastrophic stressor event that involves actual or threatened death or serious injury or a threat to the physical integrity of self or others. The response involves intense fear, helplessness, or horror (box).

Case reports

Case 1

During active service in Northern Ireland the patient was involved in a helicopter crash. The patient was strapped in but the blood and brains of his "best mate" spattered him. Four months of psychological help was deemed successful. Later, in the Gulf war, observation of troop transport helicopters awakened his memories of the incident. He carried on successfully until he was demobilised in 1994, when the support of regimental camaraderie was lost. Helicopter transport of troops in a film, *Bravo 2 Zero*, forced his mind back to the crash. Subsequently any reference to helicopters led to re-experiencing the trauma. The diagnosis of post-traumatic stress disorder was straightforward when his military history was taken as part of an assessment of fatigue, impaired memory, nocturnal sweating, rashes, musculoskeletal aches, dyspnoea, and dyspepsia.

Criteria for diagnosis of post-traumatic stress disorder

Re-experiencing the trauma by recurrent, intrusive, distressing recollections of the stressor

Persistent efforts at avoidance of the memories and numbing of general responsiveness by adjustments in behavioural and cognitive patterns with emotional blunting

Persistent symptoms of hyperarousal: sleep impairment, irritability, reduced concentration, hypervigilance, and exaggerated startle response

Case 2

A young nurse was woken by a missile exploding to her left. While she was struggling into her protective gear a warhead detonated to her right. She was sure that a third missile would destroy her or that it might contain nerve gas or bioterrorist pathogens. Terrified and claustrophobic she vomited and evacuated her bowel and bladder. Her protective kit could not be removed until tests allowed the all clear to be sounded about five hours later. She became too frightened to shower because being naked would have prevented her running to a shelter.

She took accelerated discharge from the air force. She could not keep jobs because of poor time keeping, irascibility, and disproportionate emotional responses to minor adversity. Distressing recall of terrified anticipation of her death occurred by day and night. She developed fatigue and anorexia and solitary alcohol bingeing. She became claustrophobic when shopping or on public transport where she vomited and screamed. Civilian consultations proved unhelpful because no one asked about her experiences during the conflict to learn the origins of her dysfunction.

Case 3

A non-commissioned officer found the sight of corpses of Iraqi soldiers aged about 15 years to be "awful … I have been knackered ever since … an emotional zombie … my life has been shite for the past 10 years." At the end of hostilities he volunteered to help to clear the highway from Kuwait to the Iraqi port of Basra. On leaving their Chinook helicopter his detail of 30 men vomited due to the stench of burning corpses and tyres. He will always recall a baby heat-fused to its mother's chest in a burnt out car.

Return to civilian life proved stressful. He was plagued by symptoms of hyperarousal stemming from involuntary intrusive recall of the boy soldiers and the mother and child. His inability to relate adequately with work colleagues, the need to be alone, and flashes of anger alarmed his family and relatives. He bitterly regretted striking his 6 month old son in a fit of anger. The boy had cried while his father was watching television. In 2001 investigations of his experiences during the Gulf war revealed the origins of his dysfunction.

Case 4

A major aged 37 years directed some of the clear up of battle field carnage. He saw and smelled many remains of Iraqi people but thought that he was not affected. He became uncommunicative but irritable; his love of life and the army diminished. Two years after his early retirement he saw a television documentary on the Gulf and dramatically recalled the events of six years previously. The smell of off-fresh chicken meat focused memories of rotting flesh. Repeated recall of half-burnt Iraqi corpses forced him to re-experience the initiating

trauma. His nightmares, insomnia, poor memory, fatigue, and irascibility became worse, and he developed headaches, musculoskeletal aches, and dyspepsia. His decision making and attendance at work suffered. General medical and rheumatological consultations were unhelpful. Post-traumatic stress disorder was diagnosed only after his battlefield and psychiatric histories were considered. Many symptoms had not previously been discussed. His wife felt "trapped in a tunnel with no lights" and commented "I wish this Rupert could go to the Gulf and bring my old Rupert back … I don't know how to help him."

Discussion

In all these cases specific histories of conflict and experiences in the battlefield made the diagnoses straightforward. Former combatants tend to avoid mentioning mental symptoms to their medical officer or general practitioner, and somatisation of mental disharmony can obscure the diagnosis.[4] About half the people who experience traumatic events and have a diagnosable psychiatric injury do not seek medical help.[5] We have found that accurate diagnosis is prevented by failure to take histories of traumatic events while the patient may have been peacekeeping or in combat or to inquire about patients' subjective experiences in terms of their perception of the threat to life or physical integrity after horrific events.[6] A small proportion of veterans consider themselves to be bound by the Official Secrets Act and cannot divulge detailed histories to civilian doctors. Conversely about 15% of patients in the Gulf Veterans' Medical Assessment Programme feel at ease only with civilian doctors. Additionally, the somatisation of psychiatric disorder may mislead and frustrate a practitioner.[7] Suggested exposure to noxious agents on the battlefield,[8 9] coupled with ill informed speculation, may worsen psychological dysfunction. More Gulf war veterans were referred after the recent unresearched conjecture in the media on toxicity of depleted uranium.[9]

An analysis of 21 244 US Gulf war veterans with post-traumatic stress disorder found an average of 6.7 physical symptoms per patient compared with 1.2 physical symptoms in a healthy (control) group.[10] Our research has yielded similar findings.[2] Thus a veteran with symptoms after conflict or peacekeeping must be assessed for post-traumatic stress disorder.[10] Disabling symptoms may be delayed until after demobilisation. Some service personnel still have difficulty in mentioning psychological symptoms; promotion may be threatened. Such people, who are considered to be healthy, may be deployed on operational tours and thus may experience further traumatic events. Demobilisation causes loss of service camaraderie together with worries related to inexperience of civilian life. The conflict between the ex-service macho image and the fear of being seen as a "psychiatric case" delays presentation.

While post-traumatic stress disorder can persist for at least 50 years after a conflict,[11 12] the sooner the diagnosis is made the better the chance of therapeutic success. Veterans with a delayed diagnosis are often more severely ill than those recognised soon after initiating experiences.[13] Dysfunctional behaviour is more likely to be present in a patient with a delayed diagnosis.[14] We are still making new diagnoses of this condition 10 years after the initiating stressors[2] and have no doubt that there are other veterans awaiting diagnosis. They are now likely to be civilians who consult civilian doctors. Of the first 3000 patients in the Gulf Veterans' Medical Assessment Programme, 13% had post-traumatic stress disorder and of these, 84% were referred by civilian doctors.

The NHS directive HSG(97)37 reminds health authorities that those injured or disabled as a result of service in the armed forces are eligible for priority treatment. The NHS complaints system maybe used "to resolve any alleged breakdowns in the arrangements for priority treatment."

Useful addresses

- Head of Psychiatric Social Work, Duchess of Kent's Psychiatric Hospital, Horne Road, Catterick Garrison, North Yorkshire DL9 4DF (Tel: 01748 873146)—for advice regarding resources available for veterans with suspected or diagnosed post-traumatic stress disorder
- Gulf Veterans' Medical Assessment Programme, Baird Health Centre, Gassiot House, St Thomas's Hospital Trust, Lambeth Palace Road, London SE1 7EH (Tel: 0800 169 5401)—for advice regarding management of unwell Gulf war veterans
- Ex-Serviceman's Mental Welfare Society (Combat Stress), Tyrwhitt House, Oaklawn Road, Leatherhead, Surrey KT22 0BX (Tel: 01372 841600)—for advice concerning psychological help of any ex-service personnel
- War Pensions Agency, Norcross, Blackpool FY5 3WP (Tel: 0800 169 2277)—for information regarding war pensions

Any views expressed are those of the authors and do not necessarily represent those of the Ministry of Defence or Her Majesty's Government. The case reports have been heavily anonymised without distorting fact. The patients have given their written permission for details to be released as presented.

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1 Hyams KC, Wignall F, Roswell R. War syndromes and their evaluation: from the US civil war to the Persian Gulf war. *Ann Intern Med* 1996;125:398-405.
2 Lee HA, Gabriel R, Bolton P, Bale AJ, Blatchley NF. Clinical findings of the second 1000 UK Gulf war veterans who attended the Ministry of Defence's medical assessment programme. *J R Army Med Corps* 2001;147:153-60.
3 American Psychiatric Association. *Diagnostic and statistical manual of mental disorders (DSM-IV).* 4th ed. Washington, DC: American Psychiatric Association, 1994.
4 Kroenke K, Jackson JL, Chamberlin J. Depressive and anxiety disorders in patients presenting with physical complaints: clinical predictors and outcomes. *Am J Med* 1997;103:339-47.
5 Neal LA. Medical help seeking by motor vehicle accident claimants. *Med, Sci Law* 2001;41:26-30.
6 Pilowsky I. Cryptotrauma and 'accident neurosis'. *Br J Psychiatry* 1985;147:310-1.
7 Turner J. Medically unexplained symptoms in secondary care. *BMJ* 2001;322:745-6.
8 Upshall DG. Gulf related illnesses—current perspectives. *J R Army Med Corps* 2000;146:13-7.
9 Lee HA, Gabriel R, Bolton P. Depleted uranium—is it really a health issue? *Lancet Oncol* 2001;2:197.
10 Engel CC, Liu X, McCarthy BD, Miller RF, Ursano R. Relationship of physical symptoms to post-traumatic stress disorder among veterans seeking care for Gulf war-related health concerns. *Psychosomatic Med* 2000;62:739-45.
11 Herman N, Enyavec G. Delayed onset PTSD in world war II veterans. *Can J Psychiatry* 1994;39:439-41.
12 Bonwick RJ, Morris PLP. Post-traumatic stress disorder in elderly war veterans. *Int J Geriatric Psychiatry* 1996;11:1071-6.
13 Solomon Z, Blumenfeld A, Singer Y. Clinical characteristics of delayed and immediate onset combat induced traumatic stress disorder. *Military Med* 1995;160:425-30.
14 Vuksic-Mihaljevic Z, Mandic N, Laufer D, Barkic J, Filakovic P. Combat related post traumatic stress disorder and social functioning. *Eur J Psychiatry* 1998;12:225-31.

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