Int Marit Health
2011; 62, 1: 77–81
www.intmarhealth.pl

ISSN 1641–9251

VIA MEDICA

ORIGINAL PAPER

Reasons for medical evacuation of soldiers serving in Iraqi Freedom Operation

Krzysztof Korzeniewski[1], Sławomir Pieniuta[2]

[1]Military Institute of Medicine, Department of Epidemiology and Tropical Medicine, Gdynia, Poland
[2]4th Military Clinical Hospital, Wrocław, Poland

ABSTRACT

Background. *This article presents the results of the authors' own studies concerning the evacuation of Polish soldiers serving in the Centre South Zone in Iraq during the Iraqi Freedom Operation.*

Material and methods. *Analysis was based on the medical and personnel documents of 4800 soldiers of the Multinational Division Centre South in the period August 2003–July 2004.*

Results. *Medical evacuations and rotations at the soldier's own request dominated in the analysed period in the group. The main reasons for medical evacuation (67 persons) were psychiatric disorders (acute stress disorder) requiring pharmacological treatment, followed by battle injuries (gunshot/shrapnel wounds), and non-battle injuries (sports injuries, traffic accidents). Evacuations at the soldier's own request (47 persons) were dominated by non-medical adaptation disorders and family-related problems.*

Conclusions. *Polish soldiers evacuated to their home country before the scheduled termination of duty accounted for 2.5% of the total number of military personnel assigned to Iraq in the analysed period.*

(Int Marit Health 2011; 62, 1: 77–81)

Key words: soldiers, medical evacuation, Iraq

INTRODUCTION

Tens of thousands of soldiers serving in the Stabilization Forces have been engaged in the territory of Iraq since Operation Iraqi Freedom was launched in March 2003. They are all constantly exposed to the effects of risk factors which determine the occurrence of diseases and injuries among troops. Soldiers of the Stabilization Forces have been the target of bomb attacks, mortar fire, or grenade launcher fire on a regular basis [1]. Such a situation results in the occurrence of battle injuries as well as acute or chronic psychiatric disorders, which remain the main reason for medical evacuation of military personnel to a home country [2]. Non-medical reasons of evacuating soldiers outside the mission area include family-related problems, inability to adapt to military service within the mission area, and violation of disciplinary regulations. Repatriation due to medical reasons takes place if a soldier cannot be returned to duty within 21 days following a disease being diagnosed or an injury occurring, if a patient requires intensive and long-term medical aid, or if a patient requires highly-specialized treatment unavailable in the mission area [3]. The aim of this article is to present the causes of premature evacuation of soldiers serving in the Polish Military Contingent (PMC) deployed to Iraq.

MATERIAL AND METHODS

The conducted analysis concerning the evacuation of Polish soldiers assigned to temporary duty in

✉ Col. Krzysztof Korzeniewski MD, PhD, Professor of Military Institute of Medicine, Department of Epidemiology and Tropical Medicine, Grudzińskiego St. 4, 81–103 Gdynia 3, Poland; e-mail: kktropmed@wp.pl

Operation Iraqi Freedom is based on medical records (Health Service HQ) and personnel documents of the Multinational Division Centre South deployed to Iraq. The article uses the records of 121 Polish soldiers evacuated to Poland prior to the termination of the 6-month period. Within the first 6-month stay of the Polish Military Contingent, 49 persons were evacuated (August 2003–January 2004); within the second 6 months, 72 persons were evacuated (February––July 2004). The studied group was selected out of 2400 Polish soldiers serving in Iraq during the first period and 2400 soldiers serving in Iraq during the second period. This retrospective study was complete, i.e. each Polish soldier evacuated to Poland before the scheduled termination of service was subjected to analysis.

RESULTS

Within the duration of the first 6-month tour of duty of the PMC in Iraq (August 2003–January 2004), 49 persons were evacuated to Poland before the planned end of service: 23 at their own request, 7 due to disciplinary reasons, and 19 due to medical reasons, including 2 fatalities (multi-organ injuries as a result of gunshot wounds).

Within the duration of the second 6-month duty of the PMC in Iraq (February–July 2004), 72 persons were evacuated to Poland before the scheduled termination of service: 24 at their own request, and 48 due to medical reasons, including 4 fatalities (multi-organ injuries resulting from a traffic accident — 1, and from the blast of explosives — 3).

The main reasons for medical evacuation (67 persons, 1.4%) among the 4800 Polish soldiers during 12 months of duty in Iraq were battle injuries (gunshot and shrapnel wounds, acoustic injuries), non-battle injuries (traffic accidents, sports injuries), and psychiatric disorders (acute stress disorder) requiring pharmacological treatment (Table 1).

The main reasons for evacuation of soldiers at their own request (47 persons) were: inability to adapt to service conditions within the mission area (not requiring specialized treatment) and family-related problems in their home country.

Disciplinary rotations (7 persons, 0.1%) resulted from alcohol abuse among soldiers. These soldiers were evacuated to Poland within the first few weeks following their arrival at the mission area. Enlisted personnel represent the largest corps engaged in a mission area. As a result, the most frequently evacuated group of soldiers were non-commissioned officers and privates, typically aged 26–35 years.

The participants of the stabilization mission who were evacuated to Poland prior to scheduled termination of service accounted for 2.5% (121 persons) of the total population of the PMC deployed to Iraq in the period August 2003–July 2004.

DISCUSSION

The stabilization mission in Iraq is one of the most dangerous military operations in the world. Traumatic profile and psychiatric disorders dominate among the diseases and injuries occurring in the group of soldiers of the Coalition Forces. An epidemiological in-

Table 1. Reasons for medical evacuation of Polish soldiers serving in Iraq

Reason for medical evacuation	August 2003–January 2004	February–July 2004	Total No (%)
Acute stress disorder	6	16	22 (32.8%)
Multi-organ injury (traffic accident)	3	7	10 (14.9%)
Multi-organ injury (gunshot/shrapnel wounds)	9	9	18 (26.9%)
Acoustic injury	–	2	2 (3.0%)
Sports injury	–	4	4 (6.0%)
Spinal contusions	–	1	1 (1.5%)
Back pain	1	1	2 (3.0%)
Cardiovascular diseases (circulatory failure)	–	2	2 (3.0%)
Digestive tract diseases (acute appendicitis, colitis ulcerosa)	–	3	3 (4.5%)
Hepatopathy, fever of unknown origin	–	3	3 (4.5%)
Total	**19 (2 fatalities)**	**48 (4 fatalities)**	**67 (100%) (6 fatalities)**

Source: MND CS Iraq. Own studies

vestigation was carried out within the therapeutic district of the Polish Field Hospital (Medical Support Group) in the Karbala province in the population of Polish members of the Multinational Division Centre South hospitalized and treated at medical evacuation level from October 2003 to June 2004. The research demonstrated that battle and non-battle injuries accounted for 35.8% of all hospitalizations, and psychiatric disorders accounted for 11.1% of the cases [2].

From August 2003 until July 2004 there had been 33 enemy attacks reported in Multinational Division Centre South (MND SC). The attacks resulted in the increased occurrence of battle injuries among soldiers serving in MND SC; 22 of the casualties died due to sustained injuries (including 4 Polish soldiers) and 107 were wounded (including 28 Poles). Within the same period of time a considerable number of non-battle injuries were also registered, e.g. accidental gunshot wounds (4 fatalities, including one Pole; 6 wounded, including 3 Poles), traffic accidents (2 fatalities, 1 Pole; 25 injured, 10 Poles), and others (1 fatality and 14 injured, including 6 Poles). In total, 29 deaths occurred in the population of soldiers serving in Multinational Division Centre South (including 4 Poles), and 152 soldiers sustained injuries (including 47 Poles) within the abovementioned period [4].

One of the most serious factors which negatively affects the health condition of soldiers engaged in a military missions is stress. Stress typically accompanies execution of mandatory tasks, especially during ongoing hostilities. However, aside from the dangers of military service there are a number of other factors which may induce stress, e.g. climate (high temperature and humidity), prolonged separation from family, the feeling of alienation, and the awareness of existing dangers from local fauna and flora [5].

Also, there exist a number of other stress-related factors that are characteristic for the military environment. They either result from official relations (conflicts between superiors and subordinates, inability to cope with responsibilities) or unofficial relations (age, education, and world view differences) which dominate in a given community [6]. It is commonly the case that soldiers tend to abuse alcohol as a means of dealing with stress. This, however, results in lowering morale and discipline. In 2003, within the first few weeks of Polish engagement in Iraq, seven soldiers of the PMC were returned to Poland due to alcohol abuse. The situation revealed the scale of an existing but concealed problem, i.e. alcoholism, among military personnel [7].

The effects of mental trauma (a strong or a dramatic event from either a brief incident or a long-lasting experience) may be temporary or long-term psychiatric disorders in the form of acute stress disorder (ASD) or post-traumatic stress disorder (PTSD) [8]. Symptoms of ASD persist for at least several days but no longer than a month (numbness, indifference, excitation or depression). They differ from short-term, non-pathological response to stress, which typically occurs in the middle of or directly after an experienced trauma and disappears spontaneously. The major difference between PTSD and ASD is the time of manifestation and the period of subsistence of mental disorders (from one month to many years after an experienced trauma). The most commonly occurring symptoms of PTSD are concentration disorders, recurrent memories and thoughts, nightmares, and insomnia [5]. The mental condition of soldiers is predominantly influenced by the view of the battlefield, the sight of the wounded and killed, especially of fellow soldiers, and the sight of complete material devastation. The factors mentioned above particularly affect soldiers performing extremely difficult and dangerous tasks (landing-assault forces and Special Forces) or soldiers engaged with particularly difficult tasks such as sieges [9].

Retrospective studies based on medical records of soldiers serving in Polish Military Contingents participating in the UN peacekeeping missions in the 1980s and 1990s demonstrated that the main reason for premature rotations back to a home country included diseases and injuries, family-related problems, and disciplinary problems. The highest number of early evacuations was reported during the mission in Cambodia (UNTAC 1992–1993) — 4.2% of the total population of the PMC. Whereas, throughout the peacekeeping missions in Namibia (UNTAG 1989–1990) as well as in Lebanon and Golan Heights (UNIFIL, UNDOF 1990s) the percentage of premature evacuations amounted to approximately 1.4% [10].

The reasons for being homebound before the termination of service are not only the tough conditions of military service, adverse climatic conditions, or the feeling of alienation, but also the superficially conducted medical qualification of candidates for military service before their assignment to the mission area [11]. This is a matter not only of the physical health condition (chronic illnesses) but also the mental health condition of the future participants of military operations abroad [12]. The absence of a reliable psychological profile of a candidate results in the fact that extreme conditions of service may

lead to the manifestation or intensification of disorders in the form of neuroses, depression, and anxiety [6].

From April 2003 until January 2004 during the Iraqi Freedom Operation and in the following period, over 10,000 American soldiers were evacuated to the USA due to medical reasons, including 400 soldiers evacuated due to psychiatric disorders. At least 24 cases of suicide among soldiers deployed to Iraq and Kuwait were reported by the US Army officials within the given period. This figure, however, may be much higher as the circumstances of some deaths among American soldiers were not clearly defined [13]. The study conducted by American researchers in 2004 revealed that approx. 16% of US Army soldiers currently suffer from PTSD [14].

Out of the 3.14 million American soldiers who served in Vietnam, nearly 500,000 have reported symptoms of PTSD, and almost 1 million have complained of episodes of PTSD at different points in their life [15, 16]. Extensive studies of this group of psychiatric disorders were initiated in the USA in the mid 1970s. The results of the research demonstrated that war veterans have difficulties adapting back into society. They also exhibit family, social, and health problems. The rates of unemployment, alcoholism, drug addiction, and crime are particularly high among military mission participants diagnosed with PTSD. A similar trend was observed in Russia among veterans of the war in Afghanistan [5].

According to the Ministry Of Defence, over 200 soldiers of the Polish Military Contingent were unable to cope with the hardships of military service in the stabilization mission conducted in Iraq. Ninety-one were diagnosed with PTSD. However, the majority of soldiers had stayed in the territory of Iraq until the end of the six-month rotation, even though the first psychiatric disorders (in the form of apathy, anxiety, concentration disorders, or nightmares) began to manifest themselves while being deployed overseas.

According to psychologists and physicians participating in the Iraqi mission, not every soldier reporting certain disorders of a psychological nature, e.g. becoming frightened by the blast of explosives, is diagnosed with PTSD. A huge drawback of the whole system is that there are a number of patients who tend to take advantage of psychiatric consultations and entries in their medical records confirming psychiatric disorders in order to apply for earlier retirement in the future [14].

During the 1-year duty of the Polish Military Contingent in Iraq (August 2003–July 2004), soldiers diagnosed with psychiatric disorders were directly transferred to military hospitals in Poland, mainly to the 10th Military Hospital in Bydgoszcz. They were mostly patients suffering from anxiety-depression syndrome (members of convoys, patrols, the fights in Najaf and Karbala) [17]. After hospitalization the patients were directed to local psychologists and/or psychiatrists or they were referred to psychotherapists working in military units [18].

CONCLUSIONS

1. Polish soldiers evacuated to their home country before the scheduled termination of duty accounted for 2.5% of the total number of 4800 military personnel assigned to Iraq in the analysed period.
2. Medical evacuations and rotations at the soldier's own request (114 persons) accounted for 94.2% of returns prior to the termination of duty in the population of soldiers serving in the Polish Military Contingent deployed to Iraq in the period August 2003–July 2004.
3. Medical evacuations (67 persons) were dominated by psychiatric disorders (acute stress disorder) requiring pharmacological treatment (32.8%), followed by battle injuries (29.9%, gunshot/shrapnel wounds, acoustic injury) including five fatal cases, and non-battle injuries (20.9%, sports injuries, traffic accidents) including one fatal case.
4. Evacuations at the soldier's own request (47 persons) were dominated by non-medical adaptation disorders and family-related problems.

REFERENCES

1. Korzeniewski K. Iraq. Handbook of stabilization mission's soldier. Studio Plus. Bydgoszcz 2006 [in Polish].
2. Korzeniewski K. Incidence of diseases and traumas in the population of Polish soldiers treated in the Field Hospital of the Multinational Division Centre South in Iraq. Military Doctor 2004; 80 (3): 203–207 [in Polish].
3. Korzeniewski K. Tasks and structure of the health services of the Multinational Division Centre South in Iraq. Military Doctor 2004; 80 (3): 211–214 [in Polish].
4. MND CS in Iraq. Breakdown of accidents & casualties. 07.2004.
5. Lemanowicz P, Daroszewska T. Stress and psychological assistance in military missions. Stres i pomoc psychologiczna w misjach wojskowych. Handbook for commanders. Department of Education and Promotion of Defences. Ministry of Defence. Warszawa 2004 [in Polish].
6. Kocur J. Overload syndromes. Military Doctor 1984; 3–4: 173–176 [in Polish].
7. Henzler M. Serially put off. Addictions in the army. Available at: http://www.polityka.pl. Accessed: 25 October 2003 [in Polish].

8. Potracki F. Soldier in difficult situations. Scalpel 2004; 3: 22–24 [in Polish].
9. Dójczyński M, Grecki M. Stress in the contemporary battlefield. Military Doctor 1994; 3–4: 123–127 [in Polish].
10. Kierznikowicz B, Dęga K, Olszański R. Reasons of medical evacuations of soldiers of Polish Military Contingents from the tropics. VI Symposium „Health hazards in the occupational environment". Gdynia 1998 [in Polish].
11. Korzeniewski K. Epidemiological analysis of diseases and trauma occurred among people treated in the United Nations Interim Force in Lebanon Hospital from 1993 to 2000. Doctoral dissertation, Łódź 2002 [in Polish].
12. Bernard KW, Graitcer PL, van der Vlugt T, Moran JS, Pulley KM. Epidemiological surveillance in Peace Corps volunteers: a model for monitoring health in temporary residents of developing countries. Int J Epidemiol 1989; 18: 220–226.
13. Stars and Stripes. Mideast Edition. Suicide rate higher among Gis in Iraq. Available at: http://www.stripes.com. Accessed: 26 March 2004.
14. Kowalski M, Bujakiewicz J. War in heads. Available at: http://wyborcza.pl/0,0.html. Accessed: 20 September 2004 [in Polish].
15. Stretch R. Incidence and etiology of post-traumatic stress disorder among active duty Army personnel. J Appl Soc Psychol 1986; 16: 464–481.
16. Stretch R. Post-traumatic stress disorder among Vietnam and Vietnam-era veterans. In: Fligley CR (ed.). Trauma and Its Wake: The Study and treatment of Post-traumatic Stress Disorder. Brunner/Mazel, New York 1986.
17. Kaleta W. Commission after mission. Available at: http://www.polska-zbrojna.pl. Accessed: 24 September 2004 [in Polish].
18. Wilk J, Wiśniewski A. Preparedness and process of therapy of soldiers with battle stress in the Clinic of Psychiatry of 10th Military Clinical Hospital in Bydgoszcz. Valetudinaria — Advances of Clinical and Military Medicine 2004; 2: 43–46 [in Polish].