

War Injuries in Northern Afghanistan

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Introduction

Afghanistan in central Asia has experienced war for the last 2 decades, first following the Soviet invasion from 1979 to 1989, then civil wars between rival groups in the country. During 20 years of war in Afghanistan, different sorts of weapons have been used, and the fighting has produced millions of refugees. It has destroyed hospitals, schools, workplaces, individuals, and families. Afghanistan is one of the most severely mine-affected countries. Kabul, capital of Afghanistan, has been called the most heavily-mined city in the world.¹ Of 119 million active antipersonnel mines throughout the world it is said that Afghanistan has 8 to 10 million unmarked mines.² These mines are spread over 500 million square meters of irrigation land.¹ Somewhere between 15% and 25% of the population is permanently disabled.³ About 50,000 Afghans have become amputees as result of mine accidents. A landmine accident takes place every hour in this country.¹ Each mine costs about five dollars and, using current techniques of mine clearance, about US\$1000 to remove. At the current rate of clearance it will take hundreds of years to make the whole of Afghanistan safe.²

The following prospective study was carried out at the Mazar Ophthalmic Center (MOC), the only ophthalmic center for northern and central Afghanistan (9 provinces) serving an estimated population of between 7 and 8 million.

Objectives

1. To determine the prevalence of war eye injuries and magnitude of visual impairment and blindness due to war eye trauma.

2. To determine the sex and age distribution of patients suffering war eye trauma.
3. To assess the outcomes of treatment of war eye trauma.

Methods

All patients who attended the outpatient department with ocular war injury were included in the study (6/12/1997 to 24/10/1998). A specific history was taken and each patient was examined using a Snellen chart, slit lamp biomicroscope and the indirect ophthalmoscope. Patients with minor injuries were treated as outpatients, with more serious cases admitted to the hospital. Surgery consisted of primary repair of corneo-scleral laceration and anterior segment reformation, as well as removal of anterior segment or scleral foreign bodies. There were no facilities for posterior segment surgery.

Results

Of 11,000 patients with different eye problems who attended the outpatient department, 116 patients (169 eyes) had war ocular trauma due to different weapons or military explosive material. Best (bilateral) visual acuities of those injured, at the time of presentation, are given in Table 1. Twelve *persons* (10.4%) were blind by

Table 1: Best (Bilateral) Visual acuity of War Traumatized People – At Presentation

VA	No.	%
6/6 – 6/18	84	72.4
< 6/18 – 6/60	15	12.9
< 6/60 – 3/60	5	4.3
< 3/60 – NPL	12	10.4
Total	116	100.0

Table 2: Visual Acuity of Eyes with War Injuries – At Presentation

VA	No.	%
6/6 – 6/18	34	20.1
< 6/18 – 6/60	17	10.0
< 6/60 – 3/60	6	3.6
< 3/60 – NLP	89	52.7
Not Recorded*	23	13.6
Total	169	100.0

*Because of the critical condition of the patients the VA was not recorded.



Injuries of war

Photo: M Murtaza Farrahmand

WHO definition (<3/60 – NPL) and a further 20 (17.2%) were visually impaired (<6/18 – 3/60). Visual Acuities of war traumatized eyes are shown in Table 2. Eighty-nine eyes (52.7%) were blind and a further 23 (13.6%) were visually impaired. Twenty-three eyes (13.6%) did not have visual acuity recorded. Table 3 gives the age distribution which was from 6 to 60 years (mean 33 years). Sex distribution of patients with war eye injuries was: 112 (96.6%) male and 4 (3.4%) female. Forty-eight (41.4%) patients themselves or their colleagues (mostly male children) had exploded military explosive material or were injured by misfired weapons (soldiers and militia personnel). The study found 20 (17.2%) with intraocular foreign bodies; 90% of patients had facial wounds and 43.9% other associated injuries (e.g., 2 persons with both hands amputated, 2 persons

Table 3: Age Distribution of Patients with War Eye Injuries

Age	No.	%
0–10	14	12.1
11–20	44	37.9
21–30	41	35.4
31–40	12	10.3
41–50	2	1.7
51–60	3	2.6
Total	116	100.0

Table 4: Visual Outcomes of Eyes after War Injury – At One Week after Injury

VA	No.	%
6/6 – 6/18	23	13.6
< 6/18 – 6/60	9	5.3
< 6/60 – 3/60	3	1.8
< 3/60 – NLP	36	21.3
Not Recorded *	98	58.0
Total	169	100.0

*The patients have not returned for examination.

with one hand amputated, 2 persons with one foot amputated and chest and abdomen injuries). Twenty-three eyes (13.6%) were eviscerated. Four eyes (2.4%) were given an implanted IOL. Sixty-one patients (98 eyes: 58%) did not return for check-up.

Discussion

The figures show that war injuries represent 1.0% of all people with eye problems who attended the eye hospital and that war injury is a major public health problem in Afghanistan. In contrast to civil eye trauma, which is usually unilateral,⁴ in war eye trauma the victim is prone to injuries affecting both eyes (45.7% in this study) and bilateral blindness (visual acuity <3/60: 10.4% in this study). War eye injuries were found more often among males in all age groups and is most common in the age groups between 11 and 30 years.

More than half the patients (52.6%) have not returned for check-up. A number of factors influence the final outcome for the war-injured eye(s).

1. The severity of the initial lesion, particularly in open-eye injuries.

2. The quality of first aid and the definitive eye care.⁵
3. The time since injury, the distance travelled and essential eye care all influence the outcome. Transport difficulties, lack of near eye care services, and the critical general health condition of many injured patients, require some time with the orthopaedic surgeon and the general surgeon. Relatives of the injured consult the ophthalmologist very late.
4. Poor general health status and the psychological status of the injured (e.g., amputation of hand(s) or leg(s) or death of family member(s)).

Recommendations

1. In the short term, clear marking of the areas which have been mined should be carried out, and avoidance of areas known to be mined. Government and concerned international organisations should organise awareness campaigns about mines and explosive materials for the general public.
2. In the long term, international organisations should help Afghan people to remove 7–8% of the world's unmarked mines, thus preventing more casualties

and disabilities. Agricultural production could increase by 88–200% in different regions of Afghanistan.⁶

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