

Revealing The Unspoken Crisis of Ocular Health in The Gaza Strip: A Call for Action

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Dear Editor-in-Chief,

This article was written to draw attention to the ongoing crisis of ocular health among the people of Gaza in light of the current conflict and to provide some recommendations to alleviate this crisis.

The people of Gaza have been residing under a devastating war since October 7th, 2023. Up to this moment, around 36000 Palestinians have been killed, and around 80000 have been injured (1). More than half of the houses were destroyed, most of the hospitals were disabled, and around 1.9 million people were displaced away from their homes (1). This war manifests with many humanitarian crises, such as loss of sanitation and infectious diseases, starvation and shortage of food supply, shortage of clean drinkable water, gynecological and obstetrical crises, mental disorders, and ocular health crises (2).

In addition to the adverse effects of the long-standing Israeli siege on the Gaza Strip for 17 years, this war led to a near-total collapse of the healthcare system in the Gaza Strip, due to the targeting of hospitals and medical centers, low number of qualified personnel, and severe shortage of medical supplies and procedural machines especially these needed for eye care (2). Unfortunately, this collapse has intensified with massive pressure on medical services due to the high number of civilian casualties and the complete closure of the Rafah crossing by Israeli forces (1).

Many eye care centers in Gaza have been destroyed, such as the “International Eye Hospital” in the Tal-Al-Hawa neighborhood and the “Gaza Governmental Eye Hospital” in the An-Nasr neighborhood, which are the biggest specialized eye hospitals in Gaza (3). This largely impaired the ability to provide routine medical care of high quality including close follow-up and specialized surgeries to those who suffer critical ophthalmic illnesses, such as cataracts, glaucoma, and diabetic retinopathy, which have poor consequences represented as irreversible blindness.

Since the onset of this war, civilians have faced many forms of injuries that adversely affect their ocular health. Although no current data are available, penetrating traumas like the open globe injuries are expected to affect around 58% of war-related eye injuries in innocent civilians when simulating similar conditions in Syria (4), with a near-total absence of combat eye protection equipment. A community survey before the start of the war estimated the prevalence of dry eye diseases in the Gaza Strip to be 31.5% (5). In light of these findings, the shortage of suitable treatments, the loss of clean water with the widespread infectious diseases due to the sanitation crisis, and chemical injuries due to explosion gases will massively exacerbate severe eye injuries, especially among children and the elderly. Among these gases, white phosphorus stands as a very dangerous chemical weapon that is often used by militaries to illuminate battlefields, to generate

a smokescreen. Although white phosphorus is forbidden internationally, Israel has used it several times in this conflict (6). According to WHO, white phosphorus is a chemical waxy solid substance typically appearing yellowish or colorless, and some have described its odor as resembling garlic. Once ignited, white phosphorus is very difficult to extinguish, and sticks to surfaces like skin and clothing. Its particles may cause corneal burns and perforation. In addition, exposure to smoke from burning phosphorus may cause ocular irritation, blepharospasm, photophobia, lacrimation, and conjunctivitis (7).

Therefore, we recommend a group of urgent actions to alleviate this ocular crisis:

1. Declaring immediate ceasefire to enable widespread relief of different humanitarian crises.
2. Opening the Rafah crossing gate to facilitate the influx of medical supplies and ophthalmic care machines and instruments.
3. Establishing temporary eye care centers to provide their services in different areas inside the Strip, with the wide collaboration of international medical societies to activate their emergent medical missions to Gaza.
4. Conducting large-scale research projects to identify the volume of this crisis and determine the most vulnerable parties to prioritize their relief.

Finally, the delayed relief of this devastating ocular health crisis will leave catastrophic consequences that last for generations to come, especially in young children and elderly patients with chronic illnesses. Wide international collaboration is needed to respond rapidly and most effectively to these extraordinary conditions, seeking to avoid these consequences as much as possible.

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