

EDITORIAL

Kala Pathar (Paraphenylenediamine): the Frequent and fatal poisoningSADIA IMRAN¹, SYED ZULFIQUAR ALI SHAH², ISHRAT BIBI³, FARHEEN QADEER², DEEBA KHAN², AZMIRA²¹*School of Dentistry, Shaheed Zulfiqar Ali Bhutto Medical University Islamabad*²*Department of Medicine, Liaquat University of Medical and Health Sciences (LUMHS) Jamshoro*³*Department of Forensic Medicine, Liaquat University of Medical and Health Sciences (LUMHS) Jamshoro*Correspondence to Dr. Syed Zulfiqar Ali Shah Email: zulfikar229@hotmail.com

Pakistan doesn't keep exact records of deaths or suicides because it doesn't have any vital records. The world's average suicide death rate for both men and women in 2017 was 9.98 per 100,000 people. In Pakistan, the projected age-adjusted suicide rate is 4.4 per 100,000 people. Three countries that are close by have suicide death rates of 13.33, 5.73, and 7.55 per 100,000 people, respectively. Recent statistics show that self-harm is becoming a major public health issue in Pakistan, even though the estimated rate is still low¹. About 96% of the people who live in Pakistan are Muslims. Like most major faiths, Islam says that suicide is a sin that can't be forgiven. This could be a big reason why people don't commit suicide, as shown by the fact that rates are usually much lower in Muslim countries than in non-Muslim countries. Because of religious beliefs, both self-harm and suicide are illegal in Pakistan and can lead to jail time and fines. This is another reason why people don't want to commit suicide^{2,3}. For teens and young adults ages 15 to 29, self-harm is the second most common reason for death, after road traffic accidents some places in Africa and Asia, like Pakistan, are seeing more and more people intentionally hurting themselves by taking paraphenylenediamine (PPD)⁴.

There is a lot of PPD in "Kalapathar (black stone)". It is generally mixed into henna (*Lawsonia Alba*) following it has been crushed. Henna is then used to color the soles and palms of your feet and as a red or black hairdo colorant. PPD cuts down on the amount of dye needed, makes the color stronger, and speeds up the coloring process⁵. If put PPD on eyes, it could irritate, cause hives, arthritis, asthma, lacrimation, or even blindness. Orally taking 7-10g of PPD, which is the lethal amount for our patients, causes sudden tongue swelling, trouble swallowing and speaking, stridor, and severe cervicofacial edema, which often needs an emergency tracheostomy to clear the airways^{6,7}. People who take PPD are more likely to die. This happens first because of asphyxiation and then later because of kidney failure. A major way that these people die is also through ventricular arrhythmias. Since there is no cure, management is mostly on board. An immediate tracheostomy induced alkaline diuresis, steroids, and antihistamines are the mainstays of treatment. Early stomach washing has also been shown to lower death rates⁸⁻¹⁰. There is no special antidote for PPD poisoning, so the treatment is mostly supportive. Dialysis is needed for people who have severe kidney failure. The biggest threat to life is not being able to breathe. Because of this, an endotracheal intubation tracheostomy, and assisted breathing were very important and saved the patient's life^{11,12}.

It is well known that having attempted suicide or hurt oneself on purpose at least once in the past is the best way to tell if someone will try suicide again. It was really disappointing that we couldn't find out if any of the people we looked into had a history of self-harm, and there was no mention of whether the treating doctors offered psychological counseling to the patient and their family. On top of that, survivors were only sometimes told to see a therapist. Studies that were relevant to the area also failed to record these factors. These problems need to be fixed so that survivors don't try to kill themselves again.

Pakistan's suicide rate is rising quickly, and we need to do a few things to change the direction of the last 30 years. We should start personalized campaigns to teach people about mental health and raise knowledge about it nationwide. This will help get rid of the stigma surrounding suicide and cognitive disorders. Such efforts will only work if they are backed by the local government, church / mosque leaders, tribal or clan executives, and other important community members. The strategies may get out more quickly through printed (publications, periodicals and newsletters etc.), electronic (network TV, radio, etc.), and online channels (social networks as facebook, Instagram, YouTube, Twitter, etc.). The current national poisoning policy needs to be enforced. There needs to be rules that limit the over-the-counter sale of drugs that could be harmful, like Paraphenylenediamine (Kala pathar / dyes), benzodiazepines, opiates, and opioid substitutes. Lastly, our hospitals need to have steady medical supplies and specialized tools, as well as staff that has been trained to care for victims properly. During this situation, these steps need to be taken to lower the number of deaths and illnesses caused by suicide poisoning.

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