

Foot burn from Motorcycles, exacerbated by Polyneuropathy in Diabetics: A rising concern in Pakistan

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Madam, Diabetes mellitus, affecting 6.49% (IDF report) of Pakistani population is known for its serious and unique complexities.^{1,2} A common complication is peripheral neuropathy (PN) that develops in 60-70% of diabetics worldwide.³ Also, Pakistan is ranked as fifth largest motorbike market with 7500 bikes being sold every day.⁴ The disaster of diabetic foot burn from motorcycle exhaust thus goes hand in hand.

Diabetic foot syndrome affects nearly 13.9% diabetics in Pakistan,⁵ with burns being a major concerning reason. Contact burn was found to be the second most common source of burn.⁶ In Pakistan, the ever-increasing use of motorbikes without any precaution is proving to be a startling cause of contact burn in diabetics, especially the trend of pillion riding increases the vulnerability of passengers to foot burn. The heat from the exhaust pipes and exposed silencers of motorcycles results, initially, in development of minor burn or ulcer. As a consequence of impaired sensation due to PN, there is prolonged contact with the heat stimuli and the burn trauma fails to receive the patient's timely attention and care leading to delayed presentation with severe complications.³

One of the life-threatening outcome was wound infection, with a higher incidence of 45% in diabetic burn victims.⁶ Another worrisome complication was amputation, with Pakistan reporting a higher amputation rate of 21-48% as compared to an American study reporting a rate of 15%.^{5,6} A study from Pakistan also associated low literacy rates, poor education and lack of knowledge with the disappointing foot care among diabetics.²

We being medical students in one of the biggest tertiary care centre of Civil Hospital, Karachi have noticed an

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alarming hike in diabetic foot admissions and surprisingly, the cause in many cases is none other than motorcycle burns. The exploration of motorbikes as a reason for diabetic foot holds studies that are next to none. Urgent education of diabetic masses about how 'Motorcycle is a threat' is highly essential. Not only should the hazard of motorcycle be added in the Diabetic Foot Care Programme but also, doctors should be encouraged to incorporate this aspect in their daily counselling. Cost effective methods to customize bikes for diabetics should be introduced which may include covering the silencers, adjusting the position of the pipes or minimizing leg exposure while riding. A dire need for a cross sectional study analysing precise stats may prove instrumental in preventing the diabetics from this grave calamity.

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