

Self-flagellation: An Undressed Risk Factor of Hepatitis B and C Transmission among Shiite Muslims

Sir,

According to Pew Research Institute, Muslims constitute 1.6 billion of the world population. Shiite Muslims are around 10-13% and with some estimates 20% of the world Muslim population, approximately 154 million to 200 million. Countries with Shiite majority or large Shiite population include Iran, Pakistan, Iraq, India, Bahrain, Azerbaijan, Yemen, Syria and Turkey.¹ In this letter, we bring into attention "self-flagellation" – as a probable risk factor and means of hepatitis B and C transmission among Shiite Muslims. *Tatbir* which involves self-Flagellation is a practice by Shiite males of all ages, particularly among the youth. It involves the use of sharp flagellation blades and knives of different shapes and sizes. It is practised by Shia mourners on *Ashura* which falls on the 10th day of *Muharram* - the first month of the Islamic calendar.

The mourning of Muharram involves mourning, chest-beating, wearing black, partial fasting, and narrating the tale of Imam Hussain's martyrdom and his message to the world. The mourning also includes blood donation camps and unprecedented philanthropic activities. Imam Hussain is a global symbol of resistance against injustice and tyranny. Self-flagellation is not practised by all Shiite. However, a considerable number of them flagellate during the *Ashura* procession.

Hepatitis B and C are deadly diseases, accounting for 1.1 million deaths in 2019 from these infections and their complications.² Two hundred and ninety six million and 58 million people are living with hepatitis B and C respectively as of 2019, according to WHO.¹ In 2019, WHO recorded 1.5 million new infections of Hepatitis B and C each.³

Perinatal transmission and horizontal transmission, especially from an infected child to an uninfected child during the first 5 years of life is the most common mode of transmission of hepatitis B in endemic regions. Hepatitis B is also spread by needle stick injury, tattooing, piercing, and exposure to infected blood and body fluids, such as saliva, menstrual, vaginal, and seminal fluids.³ The most common modes of infection of hepatitis C are through exposure to small quantities of blood. It includes injection drug use, unsafe injection practices, transfusion of unscreened blood and blood products, and sexual practices that lead to exposure to blood, particularly in men who have sex with men or those with HIV infection.⁴

During flagellation there are open wounds and blood splatters all around, resulting in mixing and cross-contamination of

blood among the mourners, standing in close proximity to each other. Some of the mourners exchange their flagellation blades and many of them flagellate annually - thus increasing and multiplying their overall risk of exposure. Neither every mourner is vaccinated nor is annual medical checkup common. WHO estimated that only 10% of people with hepatitis B and 21% of people with hepatitis C worldwide knew they were infected in 2019. Of these, 22% and 62% had received treatment, respectively.² Some of the countries with considerable Shiite population like Pakistan already have a high prevalence of hepatitis B and C.⁵ All of these factors when added together put the whole community at risk of not only getting infected but also spreading the infection.

This is a highly sensitive public health issue. Discussing it as it is received by contempt and frowned upon by many. Therefore, the matter should be addressed keeping in mind the religious sensitivities of the community.

The public health issue related to flagellation can be addressed at many levels beginning from community education and mass vaccination. This can be more fruitful if preached by clerics as well. Hepatitis B and C screening guideline-specific and regional Hepatitis B and C screening and treatment centres should be built in these communities. Prevention is better than cure. Screening catches the disease early, producing better therapeutic results. *Zanjir zani* which involves the use of chains is less traumatic and an alternate to flagellation blades. Those who choose to flagellate should get vaccinated, get regular screening tests and not exchange their blades. Blood donation camps should be increased and promoted in these processions. Flagellation should also be investigated as a possible risk factor and mode of transmission as there is no experimental proof to date, either in favour or against this assumption. Lowering the prevalence by the already established measures such as maintaining the sterility of surgical instruments and injections, safe sex practice and blood transfusion, universal prenatal screening policies for hepatitis B and C, and proper disposal of contaminated waste can further decrease the chances of cross infection and spread of hepatitis B and C among the mourners during flagellation.

COMPETING INTEREST:

The author declared no competing interests.

AUTHOR'S CONTRIBUTION:

TH: Concept, design, and drafting of the manuscript.

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