EDITORIAL

Emerging threat of HIV/AIDS in children in Pakistan

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The recent incidence of over 700 new HIV positive cases in children at Larkana reported by Sindh Aids control programme[1] raised an alarming situation not only for the province of Sindh, but for the whole of Pakistan. This is not the first time that an outbreak of HIV is reported from Larkana, home town of some of our influential leaders, the city has the highest number of HIV/AIDS adult patients and had witnessed similar out breaks a number of times in the past. Sindh has an estimated 60,000 HIV positive patients by August 2018. By November 2018, 889 new HIV positive cases were added which were reported from Sarghoda, a city in the Punjab province. According to National Health Survey report there are estimated 150,000 HIV patients in Pakistan, of these 75,000 reported from Punjab, 15,000 from KP and Baluchistan respectively. During the past decades there has been an unprecedented rise in HIV in Pakistan, the death toll has also been on the rise.[2]

The Acquired Immune deficiency syndrome (AIDS) is a chronic, potentially life-threatening condition caused by the human immune deficiency virus (HIV). By damaging the immune system, HIV interferes with the body's ability to fight the organism that causes the disease. Transmission through sexual contact, transfusion of infected blood, from mother to child during pregnancy or childbirth and through breast feeding are other commonly described routes.

According to World Health Organization (WHO) approximately 37.9 million individuals are affected with HIV /AIDS. Of these 1.8million are children below 15 years of age. Around 35 million are dead. Although AIDS related deaths have fallen from 1.9 million in 2005 to one million in 2016 but in 2016, 1.8 million new infections were reported, 5000 new infections per day.[3] Children below five years of age comprised of 2.6 million. Majority of adults and childhood deaths were seen in Sub Saharan Africa, Asia and Pacific region.[3,4] In many Asian countries Injectable drug use (IDU) is the major route of HIV-1 transmission. The three regions reported with the highest prevalence of HIV-positive IDUs are Latin America (29%), Eastern Europe (27%) and Eastern south Asia (17%). In a number of countries HIV infection peaks are among the Injectable drug users and female and male sex workers.[5]

The impact of the HIV pandemic on children has been huge in recent years. Children account for around 10% of new global HIV infections. Since the first cases of children with AIDS were reported in 1982, the number of children infected with HIV has risen dramatically, mainly in the developing countries. Globally an estimated 3.4 million children aged less than 15 years were living with HIV in 2010, of these approximately 240,000 were new infections (58% lower-than in 2002) and an estimated 190,000 AIDS deaths occurred in children in 2013(I7). In Pakistan there are 130000 persons living with HIV and 5500 patients with AIDS died in 2016.[6] Low to middle income countries are the hardest hit .Until 2014 low and middle income countries reported a total of 150 million people being affected with HIV[7] Pakistan being one of the low to middle income country has on overall prevalence of 0.1 to <0.5% of HIV infection in the general population However high risk group exists in Pakistan, that maintains several fold high prevalence rate.[4-7]

According to WHO, 94,000 (58,000-180,000) persons are living with HIV (PLHIV) in Pakistan. Women aged 15 and above and children aged zero to 14 living with HIV are 2,100 (1,300-3,700). Deaths due to AIDS are 2,800 (1,800-4,900). There has been an 11 percent increases in mortality from HIV/AIDS in Pakistan. The mortality rate was found to be much higher (1.5 deaths /100,000) in Pakistan than in Afghanistan and Iran (<1 per 100,000) according to a study that evaluated data from three countries.[7-9]

The number of HIV infection in Pakistan grew at an average 17.6% per year from 2005 till 2015, the highest in the world. Since 2010 Pakistan has seen a 45% increase in new cases of HIV infection.

Pakistan is facing an early concentrated epidemic among intravenous drug users (IDUs) in at least eight major cities. The high prevalence among intravenous drug users in Pakistan is as much as 5% in major cities. The numbers are continually rising. These intravenous drug users are potential threat to the community. The Asian

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Epidemic Modeling (AEM), conducted study in 2015, reconfirmed that the use of contaminated injection equipment among people who inject drugs (PWID) remains the main mode of HIV transmission in the country. The estimated number of people who inject drugs (PWID) ranges from 104,804 to 420,000. HIV prevalence in this population is above 40 % in D G Khan (49.6%), Gujarat (46.2%), Karachi (42.2%) and Sargodha (40.6%), respectively.[5,10,11]

The latest epidemic of HIV at Larkana Sindh has further threatened the situation. From April 2019 till June 2019 a total of 30,192 individuals were screened and of those found positive 82% were children below 15 years of age. The mode of transmission in these children were mainly unsafe Intravenous injection, unsafe child delivery and unsafe practices at the blood bank. The absence or poor implementation of infection control programme remains the main determining factor. This is not the first time Larkana city had an outbreak of HIV, once in 2003 and twice in 2016 Larkana has had similar episodes. In 2016, IDUs and 12 children were found to be infected with HIV infection. There are 18 HIV/AIDS treatment centers for adults and children in Pakistan.[8] At present in Sindh, the second largest province has only two treatment centers for children both located at Karachi.

Pakistan is one of the countries in EMRO region where HIV infection is increasing at an alarming rate since the diagnosis of first HIV case in 1987. In 2017 people living with HIV (PLHIV) was 150,000. In 2018 21,000 new PLHIV cases were added to the pool. Although the exact magnitude of children being infected are yet to be estimated, these children are a potential threat to enlarge the source of infection.

Further epidemiological studies involving wider population at risk and close monitoring of current situation is imperative to prevent the spread of this potentially life threatening infection. Strict preventive measures like safe delivery practices, control of use and reuse of contaminated syringes, safe blood transfusion[11,12] and strict measures to control IDUs, ART therapy in those identified with HIV infection are some measures that need to be taken as war footing.[13-15]

HIV screening of the mother are not done in most of the centers in Pakistan even in places where consent can be obtained. However where HIV/AIDS centres are established, screening of high risk mothers have a very high yield 0.2 %.[16,17]

There is unprecedented rise in HIV infection in children in Pakistan. Regular screening of blood for HIV infection, mandatory counseling of parents/care takers and initiating home visiting programme will improve the compliance and will optimize management of HIV/AIDS in children.

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