CASE REPORT

Verbal Autopsy of a Maternal Death in Rural Area of Punjab, India

Harpreet Kaur[1], Sanyogita[2], Harjot Birgi[3]

Received on: 19 December 2022; *Accepted on:* 06 March 2023; *Published on:* XX XXXX XX

Abstract

The death of a woman during pregnancy, at delivery, or soon after delivery is tragic not only for her family but for society as a whole. The case report is of a 32-year-old elderly primigravidae from Amritsar district, married to 27-year-old illiterate laborer who allegedly was a drug addict. She got registered in a government center where she was found to have severe anemia. She delivered a female by normal vaginal delivery (NVD) in the tertiary care center. Approximately 8 hours post-delivery she complained of pain in the abdomen. After examination, she was immediately shifted to the operation theatre where she passed clots and died 13 hours after delivery due to excessive bleeding despite all efforts to save her. The case report highlights the concentration of maternal deaths among poor women. Such maternal deaths can be prevented if antenatal care visits are used as an opportunity to understand the social causes operating at individual, family, and community levels and providing counseling for women to cope with them.

Keywords: Maternal death, Punjab, Rural area, Verbal Autopsy.

AMEI's Current Trends in Diagnosis & Treatment (2022): 10.5005/jp-journals-10055-0153

Introduction

The death of a woman during pregnancy, at delivery, or soon after delivery is tragic not only for her family but for society as a whole.[1] Each stage should be a positive experience for the women and their babies to reach their full potential for health and well-being.[2]

Maternal health is an important aspect to judge the development of any country in terms of increasing equity and reducing poverty. Maternal survival and well-being are not only important for them but is also central to solving various social, economic, and developmental challenges.[3]

As against the global MMR of 216 (2015), MMR in the country has declined to 167 (2011–13). The number of maternal deaths stands reduced by 68.7%.[3] Maternal Mortality Ratio (MMR) has further declined to 97 in 2018–20 from 103 in 2017–19. Sadly MMR in Punjab continues to be higher than the national average of 97. In Punjab, the reported MMR is 105 deaths per one lakh live births.[4]

Many efforts have been made by the government to reduce maternal mortality but still, there is the paucity of information regarding the causes and circumstances surrounding maternal deaths. Verbal Autopsy can be used not only for identifying the cause of death but also for finding the lacunae in the health care delivery system.[5]

In a Verbal autopsy, a structured questionnaire is used by an interviewer. In this technique, close-ended questions are asked of the relatives of the deceased. The events leading to death as described by relatives are recorded by the interviewer.

In India, there are two components of maternal death review (MDR) facility-based review which is conducted for maternal deaths occurring in the health facility, and community-based review for all reported deaths. Verbal autopsy is an integral part of the community-based MDR.[5] Verbal autopsy form was filled out after taking informed consent from the relative of the deceased.[6]

[1–3]Department of Community Medicine, Sri Guru Ram Das Institute of Medical Sciences & Research, Amritsar, Punjab, India

Corresponding Author: Sanyogita, Department of Community Medicine, Sri Guru Ram Das Institute of Medical Sciences & Research, Amritsar, Punjab, India, Phone: +91 9814788138, e-mail: sanyogita7325@gmail.com

How to cite this article: Kaur H, Sanyogita, Birgi H. Verbal Autopsy of a Maternal Death in Rural Area of Punjab, India. AMEI's Curr Trends Diagn Treat 2022;xx(x):xx–xx.

Source of support: Nil

Conflict of interest: None

Case Report

A 32-year-old elderly primigravidae from the Amritsar district, got pregnant after one year of her marriage. She was married to 27-year-old illiterate laborer who allegedly was a drug addict. She was not on good terms with her husband and most of the time she used to stay with her mother in the Gurdaspur district. The family belonged to the lower socioeconomic class. She visited the mini primary health care (PHC) of her maternal area at two months of pregnancy where her basic lab tests were done. She was found to have severe anemia as her Hb per records was less than 7 gm/dL. Later on, she went to stay with her in-laws where she got registered in third month of pregnancy. She was advised to take iron folic tablets according to RMNCH + A guidelines but as told by the accredited social health activist (ASHA) worker she was not regular in consuming them. She was also advised to visit the district hospital due to severe anemia. After a few months she had a dispute with her husband and went again to her mother's home and never returned back. Finally, she got herself registered there in the Gurdaspur district during sixth month of pregnancy. Despite regular and frequent antenatal checkups accompanied

by an ASHA worker at mini PHC and district hospital, her Hb as per records remained low at 8 gm/dL. In 8 month of pregnancy, she complained of leaking per vaginum and mild labor pains. She was taken to the district hospital in Batala from where she was referred to a tertiary hospital as the baby had passed meconium. In a tertiary public hospital in Amritsar she gave birth to a healthy female baby weighing 3 kg by normal vaginal delivery (NVD) with episiotomy. Delivery was uneventful. Both mother and baby were in good condition. Approximately 8 hours post-delivery mother complained of pain in the abdomen. After examination, she was immediately shifted to the operation theatre where she passed clots and died 13 hours after delivery due to excessive bleeding despite all efforts to save her.

Discussion

The death of a pregnant mother is a tragic event. The children surviving without a mother find it difficult to cope with their daily life and are at increased risk of dying at an early stage.[7]

Though the global maternal mortality ratio has declined by 38% from 2000 to 2017. The concerning truth, however, is that it is less than half of the 6.4% annual rate required to reach the global sustainable development target of 70 maternal deaths per 100,000 live births.[8]

There are many causes of maternal mortality among them indirect causes were responsible for about a quarter of all maternal deaths according to recent reports. The main indirect causes included anemia, HIV/AIDS, cardiac diseases, and cerebrovascular disease.[9]

Maternal anemia is one of the significant health problems that affects around 500 million women of reproductive age group. The consequences of anemia include higher chances of giving birth to low birth weight and preterm babies and also increases perinatal and neonatal mortality. Maternal anemia also places the mother at increased risk of death during and after childbirth.[10]

As reported in our case study death of primi mothers in postnatal period, similar observations were reported in another study done in Chandigarh where 32% of maternal deaths were reported in primigravida, 60.3% of them delivered vaginally. The reported deaths in the postnatal period were 67.6%.[11]

The reported case has not only highlighted the importance of management of anemia in pregnancy but also noticed that during pregnancy women seek care from multiple healthcare facilities as healthcare system level issues also contribute to maternal deaths.

As mentioned in our case report, similar findings were observed in another study where one-fifth of the cases was referred from a lower level of healthcare facility to a higher level, and in another two-fifths of cases, one referral was reported. The severity of the cases was cited as the main reason for referring the patients to higher-level health facility. Surprisingly, referrals were made from even a higher level facility such as a secondary level district hospital, with all fully equipped with necessities required for saving human lives.[11]

It is ironic that our reported maternal death occurred in a tertiary care center. The most likely cause of death is postpartum hemorrhage (PPH). The deceased woman belonged to lower socioeconomic status with minimal support from husbands. Similar findings were highlighted in a study conducted in Chandigarh where a majority of the women who died due to PPH belonged to a lower socioeconomic groups and were having very little social support. Anemia is commonly observed in the women belonging to this group which makes them highly vulnerable to PPH.[11]

Conclusion

The case report highlights the concentration of maternal deaths among poor women. Such maternal deaths can be prevented if visits during the antenatal period are used as an opportunity not only to identify the social causes operating at individual, family, and community levels but also to provide counseling for women to cope with them. Also, there is a need to strengthen the infrastructure and human resources at primary delivery points to reduce referrals to higher facilities.

Orcid

Harpreet Kaur https://orcid.org/0000-0001-5324-1199

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