

# A New Method of Suicides among Teenagers in Sri Lanka: A Case Report

Janaki Warushahennadi\*  

Department of Forensic Medicine, Faculty of Medicine, University of Ruhuna, Karapitiya, Galle, Sri Lanka.

Case report

## introduction

Suicide is the third leading cause of death in adolescents in the world. Although the firearm injuries are a common method of suicide in the United States, it is not common in Sri Lanka. We want to report the first case of teenage suicide with a firearm injury in Sri Lanka and describe the unusual mechanism the victim used to fire the gun.

## Case report

A 16 years old teenager who had 2 previous suicidal attempts was found dead with a close-range shotgun injury on the front chest. The shotgun which belonged to his father was fixed on to a 5 feet tall coconut tree in a wedge between the stem and the leaf facing the free end of the barrel towards the victim. A suicidal letter was at the scene. There was a single firearm entry wound on the front mid chest wall with a rim of burning and blackening. The measurements of the arm length and the barrel revealed that the child could stand in front of the gun and stretch the arm and pushed the trigger.

## Conclusions

The manner of death was determined as suicidal. This case report highlights the new method of suicide of adolescents in Sri Lanka. Also, this case report confirms the importance of protecting the scene which was helpful to determine the manner of death. Seeking professional health care services including counselling of these adolescents with high risk could prevent this kind of tragic events.

**Keywords:** Teenage suicides, Firearm injuries, Shotguns

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 <http://orcid.org/0000-0002-6880-5513>

**\*Corresponding author:** Warushahennadi J, Email address: [janakiwh@gmail.com](mailto:janakiwh@gmail.com) , Tel: +94773909525

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## Introduction

Suicide is a significant cause of mortality worldwide resulting in approximately 800,000 deaths per year.<sup>[1]</sup> The incidence of suicides in Sri Lanka is high and ranged 6.9 in 1995 to 18.9 in 2011 per 100,000 of the population.<sup>[2]</sup> When it comes to the teenagers the suicide is the third leading cause of death in the developing as well as the developed countries in the world.<sup>[3,4]</sup>

Preferred suicide methods vary in different geographical regions. Some patterns are well known; such as hanging, agrochemical poisoning in Sri Lanka and in India and firearm injuries and drug overdose in the USA.<sup>[2]</sup> Firearm suicide is not common in Sri Lanka and one of the reasons may be the limited access to the firearms for the civilians. But in USA about 20,012 people died due to self-directed firearm injuries each year from 2010 to 2012 which is 62% of all the firearm injury deaths.<sup>[3]</sup> According to another study done in the USA using the National Injury Surveillance System, an average of 1297 children die of firearm injuries annually and out of them 38% are suicides.<sup>[5]</sup> According to a study done in Sri Lanka on suicidal trends in 2011, a significant proportion of suicide victims were in the age range of 11-20 years which was 11%.<sup>[6]</sup> The number of adolescent suicidal deaths in Sri Lanka has increased dramatically during the past few years.

We want to report the first case of teenage suicide with a firearm injury in Sri Lanka and describe the unusual mechanism the victim used to fire the gun and discuss the importance of the crime scene examination in determining the manner of death.

## Case report

A 16 years old teenager was found dead in his home yard with a pool of blood. During the scene of crime examination, a shotgun was found fixed on to a 5 feet tall coconut tree in a wedge between the stem and the leave. (Fig.1) The muzzle end of the barrel was facing the victim. One empty casing was recovered from the barrel. A suicidal note was recovered at the scene. The shirt which he was wearing prior to the incident was found folded on his bed. The legally purchased shotgun was owned by the father of the child who kept the unloaded gun on top of a cupboard in a bedroom and the box of cartridges was inside the locked cupboard. The lock of the cupboard door was broken and one cartridge was missing.



Figure 1. Crime scene with the shotgun fixed to the coconut tree.

According to the history given by the parents, the child had two previous attempts of suicide with ingestion of household chemicals and the child had conflicts with the parents regarding the declining of the quality of his school work.

The autopsy revealed 2 cm diameter firearm entry wound on the mid-front chest wall with a scalloped margin with around 2 cm rim blackening and burning. The width of the rim blackening and burning was wider on the right side. (Fig.2) The firearm injury has perforated the left ventricle of the heart and the left lung. Nine exit wounds were grouped together on the lateral aspect of the left posterior chest wall. The length of the barrel from the free end to the trigger was 82 cm and the length of the arm of the child from the tip of shoulder to the tip of the middle finger was around 60 cm. The cause of death was concluded as a single close-range shotgun injury to the chest wall. The manner of death was determined as suicidal.



Figure 2. Entry wound on the front chest wall.

## Discussion

The major issue in this case was the manner of death. There were several classical features of suicidal injuries on the body. Those are the elective site of the entry wound which was the mid-chest, the close range of fire, the clothes has been removed and the single firearm injury.<sup>[7]</sup> But the similar features can be seen on the homicidal and even in accidental firearm injuries. The undisturbed scene revealed the position of the shotgun and the suicidal note which were supportive towards the suicidal manner of death.

The other issue was how the victim had pulled the trigger himself. The shotgun has been found fixed in a wedge between the stem and the root of the leave facing the muzzle end towards the decedent. The calculations of the distance from the muzzle end to the trigger and the child's arm length revealed that he could stretch the arm and research the trigger while standing in front of the muzzle end of the gun.

Several studies have been done in the USA on firearm suicide deaths of adolescents. When these studies were referred it was revealed that 65% of firearm suicides

happened in decedent's home using a gun owned by a family member in 57%.<sup>[8]</sup> The studies also revealed about 19% of decedents had previous suicidal attempts.

The common causes of suicides in adolescents were situational or relationship problems with family, friends or intimate partners.<sup>[8]</sup> Similar to the findings of these studies this incidence also occurred at home with a firearm owned by a parent following a recent relationship problem with parents and adolescents with major depression, other mental health problems, or previous suicide attempt were identified as risk factors for suicidal attempts.<sup>[8]</sup>

## Conclusion

This case report highlights the new method of suicides of adolescents in Sri Lanka. Also, this case report confirms the importance of limiting access to firearms as well as the other weapons and the common agents used as suicidal methods for teenagers who are at high risk for suicide attempts. Also seeking professional health care services including counselling of these adolescents with high risk could prevent this kind of tragic events.

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