

## Drowning is the most common cause of accidental death during childhood in Bangladesh

Ahmad Sadek

Associate Professor & HOD, Dept. of Forensic Medicine, Army Medical College, Chittagong, Bangladesh

**\*Corresponding Author:**

Email: dr.sadek555@gmail.com

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### Abstract

Bangladesh is a riverine country and about 700 rivers including tributaries flow through the country also middle income country. Drowning is the leading cause of death in children in Bangladesh. Children are more vulnerable in rural area than urban. Flood disasters are becoming more frequent in Bangladesh and this trend is expected to continue. During rainy season drowning risk increases in flood prone area.

**Keywords:** Drowning, Risk factor, Children death and prevention.

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### Introduction

The geography of Bangladesh has established water as a common feature of the landscape. In the villages inmates are totally depend upon ponds and rivers water. They used it for bathing, washing, drinking, agriculture, fishing, cooking and for playing by children. Age is a great factor during drowning. Majority cases children are the common victims. In children aged five and under, fatal drowning occur in ponds and ditches less than 20 metres away from the home. In children over five drowning occur further away from the home, usually whilst swimming without adult supervision. Almost all fatal drowning in Bangladesh occur during the day, particularly between 9am and 2pm when parents and supervisors are preparing food, cleaning the house or working. Drowning deaths mostly occur in remote areas like villages.

### Case History

**1<sup>st</sup> Case:** Monira's mother, a handloom worker, was busy working inside their house and checking on the baby once in a while. After some time, Monira 5yrs old, disappeared and her panic-stricken parents searched for her everywhere. Soon, they recovered the child's body from a nearby pond on 13<sup>th</sup> April, 2017. It was too late to resuscitate her. Unknowingly, Monira had walked into danger. Her parents are yet to recover from the shock.

**2<sup>nd</sup> Case:** Two cousins drowned in a pond at kasempur village in golapjong upazila of sylhet district on May 4, 2017. Quoting locals, police said Foyed ahmed, 6, son of Suman ahmed drowned in a pond when he was playing with his cousin Wahid mia, 07. Wahid, son of Azom mia, went to save his brother and he drowned too. Later, they were rushed to a local hospital where the attending doctors declared them dead. Father of the victims Suman and Azom are siblings.

**3<sup>rd</sup> Case:** In another incident, two minor sisters drowned in a pond in Jaflong, Sylhet area in Bangladesh. Koli 5yrs & kakon 7yrs old. After finished

their playing, they went to pond for cleaning. Suddenly koli drowned and her sister kankon tried to rescued her. At last two drowned.

**4<sup>th</sup> Case:** Misba's mother, a house worker lived in Remote village area in sylhet. She was gossiping with her neighbor and misba 03yrs old, playing on the ground near the lake. Suddenly he fall down lakes and drowned.

**5<sup>th</sup> Case:** Two School boys (6yrs & 8yrs ) played football near surma river in sylhet area. Suddenly football gone to river and they came to take it. When they tried to catch football from river, they already drowned.

### Discussion

In all cases finding are in favour of asphyxia and typical drowning feature present. On external examination mouth and nostrils show fine, white, copious, leathery froth and sometimes blood stained also. Due to cadaveric spasm the hands of the deceased clenched and on opening show mud, sand, and plants etc. Hypostasis developed on the entire anterior surface of the body. On internal examination lungs are pale, voluminous and bulges out like balloon. Other organs are congested.

Monira, Sumon is not an exception. Thousands of children died in Bangladesh every year due to present of numerous rivers, ponds and lakes. Accidental drowning constitutes a significant public health problem that is often neglected in developing countries. The World Health Organization (WHO) estimated that 372,000 deaths occurred from drowning in 2012, which has made it the world's third leading unintentional injury killer.<sup>(1)</sup> Drowning kills a Bangladeshi child every half hour.<sup>(2)</sup> In the developed country, drowning often occurs in recreational swimming pools<sup>(3)</sup> whereas in developing countries drowning happens in natural water bodies such as ponds, ditches, rivers, lakes, and dams.<sup>(4)</sup> Risk factors for childhood drowning include, inadequate supervision, male sex, lack of physical barriers between people and water bodies, and lack of

swimming ability also lack of water safety awareness. During rainy season travelling on overcrowded or poorly maintained vessels and water related disasters (e.g., flood, extreme rainfall, storm surges, and tsunamis or cyclones) are also common risk factors in all age groups globally.

Bangladesh Health and Injury Survey (BHIS) 2005, and reflect the trend that rural children aged 1–4 years are the worst affected by drowning in Bangladesh, and that this trend has not changed over the past decade.<sup>(5)</sup> Similar findings have also been reported in other East-Asian countries such as Thailand, Vietnam, and China.<sup>(9)</sup> As a tropical climate in Bangladesh, monsoon rainfalls may lead to floods, and increased water levels in rivers, canals, ponds, and ditches, which puts children and other individuals at higher risk of drowning. Virtually all (95%) drowning events occurred in the daylight hours.

### Conclusions

Drowning is a major public health concern in Bangladesh and common victims are children. It's time to need national efforts and logistics to reduce drowning in rural Bangladesh. Also conducting awareness campaigns, increasing knowledge and efficiency among the parents for looking after their children, ensuring effective family and social security as well as giving training on how to swim could reduce the children's death risk.

### References

1. Drowning Media Center. World Health Organization. [(accessed on 2 November 2016)]; Available online: <http://www.who.int/mediacentre/factsheets/fs347/en/>.
2. Dhaka tribune. Drowning kills a Bangladeshi child every half hour <http://www.dhakatribune.com/>.
3. Kemp A., Sibert J.R. Drowning and near drowning in children in the United Kingdom: Lessons of prevention. *Br. Med. J.* 1992;304:1143–1146. doi: 10.1136/bmj.304.6835.1143.
4. Hyder A.A., Borse N.N., Blum L., Khan. R., El Arifeen S., Baqui A.H. Childhood drowning in low- and middle-income countries: Urgent need for intervention trials. *J. Paediatr. Child Health.* 2008;44:221–227. doi: 10.1111/j.1440-1754.2007.01273.x.
5. Linnan M., Anh L.V., Cuong P.V. Child Mortality and Injury in Asia: Survey Results and Evidence. [(accessed on 26 December 2016)]; Available online: [https://www.unicef-irc.org/publications/pdf/iwp\\_2007\\_06.pdf](https://www.unicef-irc.org/publications/pdf/iwp_2007_06.pdf).
6. WHO The Injury Chart Book: A Graphical Overview of the Global Burden of Injuries. [(accessed on 31 December 2016)]; Available online: [http://www.who.int/violence\\_injury\\_prevention/publications/other\\_injury/chartb/en/](http://www.who.int/violence_injury_prevention/publications/other_injury/chartb/en/).