



Short Communication

Occurrence of Food Borne Illness- A Major Problem in Lakhimpur District of Assam

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ABSTRACT

In recent years, frequent outbreaks of food poisoning and mushroom poisoning cases occurred in different areas in Assam. A study was carried out in Lakhimpur district of Assam for a period of 4 years (2012-2015). The aims of the study was to find out the actual numbers of people suffered from food borne illness due to the consumption of poisonous food and wild mushroom. During 2012-2015, 9 outbreaks of food poisoning and 12 outbreaks of mushroom poisoning have occurred in Lakhimpur, Assam. A total of 170 food poisoning and 71 mushroom poisoning cases were reported from 2012-2015. During the four years, a total of 5 patients expired due to food borne illness (food poisoning-1, mushroom poisoning-4). Very poor living sanitary condition was found in those villages. Most of the outbreaks of food poisoning occurred during the time of religious function where people assembled together and thus more and more people were prone to getting the infection. Again, the mushroom poisoning cases were noticed during the month of April to June every year, as wild mushroom grew up during that season and people consumed it as a food. Strong awareness and surveillance system is required to reduced morbidity and mortality due to food borne illness.

Keywords: Assam, Food poisoning, Mushroom poisoning, Outbreaks

1. INTRODUCTION

Nowadays, the food borne illnesses are commonly occurred all across the state of Assam. It becomes a great concern and awareness is the one and only way to get rid of the cause. It has been seen that, many of the causes of food poisoning are due to the improper cooking of food and food substances, less hygiene, poor knowledge among the people about what to eat or do not etc. In every year, cases of food poisoning are

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reported from different areas in Lakhimpur, especially during the time of religious function. During religious occasion many people are attended, get together and consumed food or food substances¹. The chances of improper cooking, less hygiene are also more during that time. If due to certain reason, they consumed improper food/contaminated water, it can have the possibility to spread the germ in a large community by faeco-oral route. Again it has been observed that during April–June each year, heavy rainfall occurred in different areas of Assam. This period is very dangerous as wild mushroom grew up, villagers are not able to identify the wild mushroom and they consumed it as a food substance. As a result of which, large numbers of mushroom poisoning cases has been reported from different areas of Lakhimpur². This study have provided detailed information on the cause of food poisoning and also identified the most vulnerable areas where the cases of food poisoning reported frequently.

2. MATERIALS AND METHODS

The study sites include the food poisoning and mushroom poisoning reporting areas in Lakhimpur. The study has been undertaken for a period of 4 years (2012 to 2015). Atleast 10% of stool samples were collected from suspected food poisoning and mushroom poisoning cases in each outbreak. The samples were collected in a Carry Blair media and transported to the District Public Health Laboratory (DPHL), North Lakhimpur Civil Hospital (NLCH) for culture and sensitivity test. All collected samples should be before treatment period.

3. RESULT AND DISCUSSION

A major outbreak of food poisoning has occurred in Ujani Jalbari village under Dhakuakhana during the month of April, 2015. On 22nd April a religious function was held in that village of which a total of 80-100 people were attended. They consumed gram (*Mah Prasad*) and Kheer (*payash*) during the occasion. After

2-3 hours, all patients developed symptoms of vomiting, abdominal pain and loose watery stool. The drinking water source was observed and found that the people in that locality have used well and tube well, however those wells are without platform. During that outbreak 5 numbers of stool samples were collected for culture and sensitivity test. Growth of *E. Coli* was found in one sample and the remaining four samples, no growth observed. All age groups were found affected with food poisoning (Table 1). Among the food poisoning cases 56.82% were females, indicates more vulnerable for infection as compared to male.

Table 1: Age group wise numbers of food poisoning/mushroom poisoning cases in 2015

Age groups	Number of food poisoning cases	Number of mushroom poisoning cases
1-10	11	4
11-20	16	8
21-30	19	4
31-40	14	4
41-50	20	1
51- above	8	---
Total	88	21

In 2015, a total of 21 mushroom poisoning cases were observed from three different areas in Lakhimpur, Assam. Initially, on 23rd May, 6 numbers of mushroom poisoning cases (same family) were reported from Merbil Kathoni village under Harmutty, Bihpuria area. On 31st May, 3 numbers of mushroom poisoning cases were observed from Thekeraguri Sensuwa village under Chouldhowa area of Boginodi. All the cases belong to the same family and they developed symptoms of vomiting, abdominal pain and loose watery stool after 1 hour of taking wild mushroom. Another 4 cases of mushroom poisoning had been reported from Gormur Sonapur village under Laluk on 4th June, 2015. Again, during the month of August, a total of 8 nos. of suspected mushroom poisoning cases were reported from Thekeraguri Na-Ali village under Chauldhuwa MPHC of Boginodi BPHC. Out of 21 cases, the culture of stool samples showed growth of *E.*

2014	7	1	2
2015	21	0	4
Total	71	4	12

Coli in 18 samples, where no growth was observed from remaining 3 samples.

From 2012-2015, 170 food poisoning cases were recorded in 9 outbreaks. Large numbers of suspected food poisoning cases were reported in 2015 from Dhakuakhana area. In that outbreak, total 88 numbers of patients were affected. In 2014, 3 numbers of food poisoning outbreaks has been taken place affecting a total of 32 people. Again in 2013, a total of 50 patients were affected by food poisoning in 5 outbreaks from different areas in Lakhimpur. On 14th December 2013, a 35 year female expired due to food poisoning and the patient belongs to Koilashpur village under Dhalpur area. No food poisoning outbreaks has occurred during 2012 in Lakhimpur district of Assam (Table 2).

Table 2: Year wise food poisoning cases in Lakhimpur from 2012-2015

Year	Number of food poisoning cases	Number of death due to food poisoning	Number of food poisoning outbreaks
2012	0	0	0
2013	50	1	5
2014	32	0	3
2015	88	0	1
Total	170	1	9

From 2012-2015, a total of 71 patients were affected due to the consumption of wild mushroom in Lakhimpur, Assam (Table 3). During this period, a total of 4 patients expired after consumption of wild mushroom in Lakhimpur, Assam. In 2012, there were 5 mushroom poisoning outbreaks, affecting 38 people with 3 deaths. Only one outbreak due to consumption of mushroom poisoning has been taken place in 2013 whereas in 2014, 7 people were affected with 1 death in 2 outbreaks of mushroom poisoning. In 2015 till August, a total of 21 patients were affected after consuming wild mushroom in 4 outbreaks.

Table 3: Comparison of mushroom poisoning cases in Lakhimpur (from 2012-2015)

Year	Number of mushroom poisoning cases	Number of death due to mushroom poisoning	Number of mushroom poisoning outbreaks
2012	38	3	5
2013	5	0	1

The sanitary condition was very poor in the affected areas. People have limited knowledge on food borne infection, its cause and prevention. During the study period, it was noticed that most of the outbreaks of food poisoning occurred during religious function like puja, bihu festival and personal religious function etc. On the other hand, the outbreaks of mushroom poisoning have occurred during the month of April to June every year. This is because heavy rainfall started during April to June and as a result of which wild mushroom grew up. The local people are unable to recognize the edible mushroom and they consumed such wild mushroom as a food substance. After eating, people developed severe symptoms like abdominal pain, vomiting, loose watery stool and even not treated at time, one may die due to overexpose of toxic substances.

4. CONCLUSION

Strong surveillance is needed to prevent mortality due to food poisoning and mushroom poisoning. At the same time, an unending awareness programme among the villagers is very much crucial for reducing the burden.

5. REFERENCES

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