

SPOTLIGHT



A large part of Chittagong remains submerged by clogged tidal and rain water

PHOTOS: RAJIB RAIHAN



Families in Agrabad's Beparipara area have to collect drinking water from taps installed on the sewer lines

"Assalamu Alaikum. This is to inform you please don't drink water without boiling it for 30 minutes. Don't drink uncovered juices, sherbets from street food vendors. If your eyes seem yellowish, if you are suffering from fever or diarrhoea for more than three days, go immediately to the temporary health camp at the government urban dispensary..."

The announcer is accompanied by a group of officials from Chittagong Water Supply and Sewerage Authority (CWASA), members of law enforcement agencies, and photographers and journalists. They move into a lane in South Kattoli area of Pahartali. They knock on the gate of a building called Khaleda Villa located at the very end of the lane, and ask the landlord to allow them to examine the building's water reservoirs. The officials quickly open the hatch covers of the water reservoirs and examine it while journalists take photos. They also start the motor pump and collect water sample from the reservoir and the pipeline. While leaving the place, the officials ask the landlord to clean up the reservoirs as soon as possible.

When water means death

The reason behind the announcement and spectacular visit by CWASA officials is the widespread outbreak of Hepatitis E (one of the five known viral hepatitis caused by Hepatitis E Virus, HEV, which spreads usually through faecal contamination of drinking water) in a large part of Chittagong city. At least four people have lost their lives due to HEV infection in the last three months and thousands of people are still suffering. This water-borne epidemic has challenged CWASA's capacity to supply safe drinking water and maintain sewerage system in Chittagong, the second most important metropolis of Bangladesh with a population of more than 2.5 million people.

Just in Khaleda Villa, a seven-storey building housing 18 families, 26 members of 17 families have been diagnosed with Hepatitis E infection. We talked to a family living in Khaleda Villa, where three out of six members of the family are still seriously ill due to acute HEV infection. The only son in the family, Ashiful Hasan Rishad, died of HEV infection on June 20. His mother, Nahid Akhter, has also been suffering from HEV infection for more than 15 days. As she was too sick to look after her son, she often blames herself for her son's death when she is delirious from the illness.

The only family in the building who are still unaffected by the plague inform us that they hardly ever used the water supplied by CWASA. Instead, they used ground water pumped by a tube-well or they purchased purified water because they knew that CWASA's water was not safe. Again, adjacent to Khaleda Villa, we found some single-storey-barrack shaped apartments with extremely congested and grungy interiors. We thought we would find some more HEV patients in these apartments seeing its unhealthy environment. However, to our surprise, none of the occupants of those apartments have been infected so far. Hena Khatun, a resident of one of those apartments, says, "We preserve rain-water and we use it throughout the year. We never use water from the pipelines..."

Dr Selim Akter Chowdhury, chief health officer, Chittagong City Corporation (CCC) says, "We also found several households in Halishahar who don't use water supplied by CWASA and are not infected, whereas many of their neighbours are suffering from HEV infection. You can guess from these cases the reason behind this outbreak."

However, CWASA has been denying this claim from the very beginning. A K M Fazlullah, Managing Director of CWASA, has provided us pages of laboratory test reports which

INSIDE THE HEV EPIDEMIC

More than 2.5 million people in Chittagong are exposed to an HEV outbreak—and no one's doing anything to stop it.

MD SHAHANAWAZ KHAN CHANDAN
back from Chittagong

apparently show that there was no presence of faecal substance in CWASA's reservoir and obvious presence of faecal substance in the water reservoirs of the residential buildings. However, those reports are somewhat misleading because there are many other external sources of contamination which can infect the drinking water supplied by CWASA midway between CWASA's reservoirs and reservoirs of the city dwellers.

Emran Hossain, brother-in-law of Rishad, says, "When we learned that Rishad was infected by HEV, which is a water-borne disease, the first thing that came to my mind is the scene of a long-trench dug on the road adjacent to our home by CWASA. At the bottom of the trench, I used to see several rusty pipes—probably sewerage or drinking water pipes. Those pipes remained uncovered in the trench for at least two months. During this time, all kinds of waste, runoff water and dirt fell on those pipes. And it seemed that those rusty pipes are not at all leak-proof. I will not be surprised if drinking water

supplied by CWASA gets contaminated in this way."

When asked about this particular case, Fazlullah agrees. "Yes this can also be a source of contamination," he says, and reveals a more shocking scenario. According to him, CWASA's drinking water supply system is at least 33 years old and many sections of the pipeline are more than 50 years old. The age-old rusty pipes leak frequently, which they have to repair by digging open trenches on the road. As many parts of Chittagong city get submerged during high tide due to its dilapidated drainage system, polluted tidal waters can mix with the drinking water through these open trenches and rusty pipelines.

"Besides, we could not develop any systematic sewerage and drainage system for Chittagong city. We had no budget and resources for it. As there is no sewerage system, I cannot rule out the possibility of contamination of sewer water with drinking water completely but the possibility is very low as we

Building owners are cleaning their water reservoirs as HEV outbreak hit the city

repair the pipes regularly. I think waterlogging is mostly responsible for this outbreak and Chittagong Development Authority (CDA) is working on it," argues Fazlullah.

An epidemic of false claims

While CWASA tries to pass on the responsibility to another organisation and continues testing water from its reservoirs to prove its purity, every day, hundreds of patients are being diagnosed with HEV infection in different parts of Chittagong. According to the office of the civil surgeon, Chittagong, 99 new patients have been identified with HEV infection just on July 2 (from 9 am to 5 pm). On July 1, this number was 125. And from May 1, 2018 till July 2, 2018, the total number of patients infected by HEV is 848. However, these numbers don't show the true scale of the epidemic at all. According to Dr Md Nurul Haider, medical officer, disease control, Chittagong civil surgeon's office, the source of these data are the daily reports sent by several hospitals and private clinics and a few government dispensaries where HEV patients have been treated.

Experts believe that the number of HEV infected people is much higher. "Halishahar is a very densely populated

area with extreme waterlogging, sewerage, and sanitation problems. Around 800,000 people live in less than nine square kilometres. Water-borne infectious diseases like Hepatitis E can spread like wildfire in this condition," comments Dr Md Mamunur Rashid, associate professor, department of clinical tropical medicine, Bangladesh Institute of Tropical and Infectious Diseases (BITID).

"Besides, the incubation period for HEV is 45-60 days. That means, the first symptoms start to appear 45-60 days after catching the infection. As a result, many people, mostly from poorer socio-economic backgrounds, take primary treatments of fever, diarrhoea, or jaundice, or go to shamanic healers which is more affordable for them and which make it more difficult to comprehend the true range of the outbreak," adds Dr Rashid.

In fact, the government health offices have utterly failed to identify the outbreak in time. They first noticed the outbreak of Hepatitis E in the first week of May. "There might have been sporadic cases of infection before May, which we didn't know of. But the first major outbreak occurred in the beginning of May and this is why we started to collect information about HEV patients from May 1, 2018," says Dr Haider. According to all government records, three HEV patients have died since the outbreak in May.

However, the local people of Halishahar and Agrabad told us that they have been suffering from jaundice outbreak since March, as early as February-March. We found a family who lost one of their members on April 29, 2018 due to HEV infection—who is not on the government's list.

"I had been hearing about jaundice outbreak since March, I think. One day, I learned that one of our neighbours had also got jaundice. It was probably in the beginning of April. At the time, I

didn't know about Hepatitis E, and I was extremely busy with my wife and my new-born boy," says Ishtiaq Hasib, a textile engineer and a former resident of Halishahar area. Ishtiaq became a father of a baby boy in December 11 last year.

"It was April 10 when I noticed that Tanzida [Tafazzol] too started showing symptoms of jaundice. She was an introvert. Although she was suffering, she hardly expressed it. She used to breastfeed my son regularly and she was receiving regular treatment of jaundice," says Ishtiaq. On April 24, Tanzida's condition deteriorated suddenly and she had to be hospitalised. Medical investigations conducted in the hospital revealed that Tanzida was infected by HEV. In fact, by April 24, Ishtiaq learned that it wasn't just Tanzida, but all of the inhabitants of his building, Darul Mustafa, located in Eidgah, Boropukurpar of Halishahar, had also been diagnosed with HEV infection. Ishtiaq, too, was infected.

Tanzida, who was just recovering from complications caused by pregnancy, could not survive the attack. On April 29, 2018, she succumbed to her illness leaving behind her four-month-old son and her bereaved husband. However, the earlier outbreak of HEV that caused Tanzida's untimely death is not recognised by the administration at all. Her name is nowhere to be found in the government records. This unfortunate case proves the unreliability of the government's estimate and indicates that there might be many more cases of infection and casualty which are not included in the given estimation.

Plaguing the city for at least five months, HEV infection is now rapidly advancing to different parts of the city. Although Chittagong City Corporation and Civil Surgeon's office are claiming that the HEV infection has been contained in Halishahar area, the reality is quite different.

Continued to page 10