The Rise of Drug Resistant Tuberculosis in India
Transcript

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Dr. KC - Dr. Kamal Chopra
Dr. SK - Dr. Salmaan Keshavjee
Dr. LA - Dr. Lalit Anande
MK - Manoj Kumar
H - Harish
M- Mohammad
R - Rekha
RK - Rekha's Mother

This is a Suno India production and you are listening to Gasping For Breath.

Dr. AK- Acha Acha pehle wajan karao.
Okay Okay! First get your weight checked.

M(Host)- This is Patna's Tuberculosis Training and Demonstration Centre, locally called TBDC. It is the nodal centre for treating any form of drug-resistance tuberculosis in Bihar. Dr Ajay Kumar is chief medical officer there.

The centre, like many TB wards, is quiet. Dr Kumar sits in an airy passage connecting the centre with the wards. The patients sat on two stools several feet away from him.

It was a hot May day. Waiting in line was a Harish. He is 27-year old. Harish was wearing a vest and shorts waiting for his turn to speak to the doctor.

Aap kahan rehte hain?
Where do you live?

Harish- Hamara ghar hai Sitamarhi Zilla.
I have a home in Sitamarhi Zilla

M(Host)- He worked at a sweet shop in Nashik in Maharashtra. He was visiting his village three months ago when he fell sick.

H- Ghar pe mummy ka operation karane aaye. Jab tak kuch nahi hua.
Cough bahut jyada lag raha hai
Peeth dard lag raha hai
Bukhar lag rha hai
Hath paer dard karta rehta hai
Come home to get my mother's operation done. Until nothing happened
Cough looks very much
Feeling fever, pain in the back and continuous pain in hands.

M(Host)- He visited three doctors, one of who, he said was a jali doctor. Meaning a doctor without a degree. One treated him for typhoid. He was neither getting a convincing diagnosis nor getting better He decided to go to Nepal. His wife is from there, Finally, he was diagnosed with TB in Nepal.

H- 25,000 Rupaiya kharcha kiya
I spent 25,000 Rupees.

M(Host)- In Patna, he was diagnosed with multi-drug resistant tuberculosis or MDR-TB. This is the form of TB where the bacteria in the body is resistant to at least two of the most important TB drugs- rifampicin and isoniazid. While the names can be confusing, what is important to remember is that they are the most powerful TB drugs.This kind of TB is much harder to cure.

H- Darr yehi hai..humko theek hona chahiye. Isse pehle aise hua hi nahi tha, isliye ghabra rha tha.. Kabhi khaya hi nahi tha dawai, kabhi bhukar vukhar kuch nahi lagta tha.

I was scared because I wanted to get better. Nothing happened to me before this, i have never had medicines and fever that is why i was scared.

M(Host)- His fears are not unfounded. TB has become a lot more complicated now. I am Menaka Rao, the host of this podcast called Gasping for Breath. This is the second episode. In this episode we speak about the rise of drug-resistant tuberculosis or MDR-TB in India. Please note that we have changed the names of TB patients to protect their identity.

Let's first understand what drug resistance means. Drug resistance happens when microorganisms or bugs as they are called change when exposed to a drug. The bugs develop resistance to the drugs and these drugs are no longer effective against it.

The problem of drug-resistance is as old as drugs themselves. In the case of TB, drug resistance was known after the first drug was introduced- that is streptomycin.

Dr. SK - "1948 the British Medical Research Council does the study on Streptomycin and finds out that if you give Streptomycin alone you get a cure but you get about you know a very high rate of resistance."

M(Host)- This is Salmaan Keshavjee, a professor of Global Health and Social Medicine at Harvard Medical School.

Dr. SK - "If you give para-aminosalicylic acid alone or Streptomycin alone you see resistance but if you give them together you see better outcomes and less resistance"

M(Host)- Simple TB aur sada TB as they call it is mostly curable but we have DR-TB to reckon with now.

In 2017, the World Health Organisation or WHO estimated approximately 1.35 lakh MDR-TB cases in India. This means that about 10 per lakh persons are MDR-TB positive in the country.

The situation was not always this bad.

In the early 90s, doctors felt that people who took medicines and were able to care for themselves did get better.
Dr Lalit Anande, now the Superintendent of Sewri TB hospital in Mumbai, probably Asia's largest TB hospital, was a young doctor then.

Dr. LA- "It was a predictable disease you know, you start the medicine which previously used to be 4-5 medicines, all the primary line medicines which are they we used to start and only those patients who were not taking medicines they used to have a problem but those patients who used to take medicines very regularly and that time the treatment regime was 9 months, they all used to become well. The fever used to go after 15 days, so predictable it was."

M(Host)- Around this time, the international attention towards TB had dipped. Harvard University historian Sunil Amrith records this. By 1974, TB was not a separate agenda for the WHO since the number of countries reporting TB cases reduced considerably. But, in the developing countries, TB was still raging. This was seen as purely managerial problem- that of not being able to distribute and supervise the drugs well

However, this silent epidemic worsened in the 1980s and 1990s when the HIV epidemic started. The first few cases of HIV were found in the US in 1981. Later, doctors in Chennai also found a few cases of HIV among sex workers there.

Drug-resistant strains were reported in the New York and parts of Eastern Europe, particularly Russia.

Tb was then seen as "re-emerging" disease. Newspapers described it as "Ebola with wings". But American medical anthropologist and physician Paul Farmer did not agree. He argued in his seminal book, Infections and Inequalities, that while it appeared that TB had declined in the US, it did not in some pockets of the country. The infection in fact rose among blacks and Hispanics. Of course, in India, it was definitely not a resurgent disease.

In any case, TB was a matter of concern again. This is supposed to have spurred WHO to fund countries such as India to set up a new revised version of the TB programme- with flagship scheme Directly Observed Treatment Short course- known as DOTS. The idea was to set up treatment units in every nook and corner of the country.

Dr. KC- "RNTC ne isko Revised National TB Control Programme ka naam diya basis diya Directly Observed Treatment Shortcourse matlab patient ko do shortcourse jitna thode duration ka treatment hoga utna compliance zada hoga, ek sal do sal ki jagah 6 mahine ka doge toh patient zada complete krega shortcourse ho gya, directly observe ho gya mere samne khao, mahine ki dawai toh dedi aapne, usne kitne din khayi? You never know toh basis was DOTs aur dusra point kya tha Decentralization, programme ko decentralize kro, pure district me patient ke liye ek hi jagah aana bahot mushkil hai toh unhone kaha ek DTC ki jagah DTC zarur ho lekin ek lakh ki population pe aap ek DMC banao, DOT ka microscopy, ek district tha DTC jahan banaya usko DTC rehne do, that will remain an administrative unit, function unit ke liye aap DMC banao DOTs ka microscopy centre usme ek LT hoga Lab Technician jiske pas microscope hoga aur ek hoga DOT ka, BHI me medical officer hoga hi hoga."

RNTC (Revised National TB Control Programme) named it Directly Observed Treatment Short course which means give short course to the patients. Instead of giving 1 or 2 years of treatment to patients, give them 6 months course and make them take the dose in front of you. And, the other important point is decentralization, which means the programmes should be decentralised and there should be DMCs for 1 lakh population and there should be lab technicians and medical officers.

M(Host)- This programme helped create greater access to treatment for patients with uncomplicated TB. The patients did not have to go to district headquarters and could get treatment near their homes. However, it remarkably left out any treatment for DR- TB.

This, despite DR-TB being recorded in many parts of the country even then. Dr Lalit Anande saw the tide turn over a period of time in his practice.

Dr. LA- "But now it has become different. In 1997 we saw the trend happening, in our hospital itself we started seeing that some medicines are not working, it must be resistance but 1997 we saw trend happening, few of the medicines not working, we did not name it we just went on. 2001-2003 we saw a different trend some of the more medicines were not working, 2006-2009 we saw different trend over here and we were saying that something has gone wrong."

M(Host)- The government research institutions working on TB conducted surveys in some parts of the country. The studies were conducted in districts of Karnataka,Tamil Nadu, West Bengal and later in Gujarat, Maharashtra and Andhra Pradesh. The small surveys showed varying levels of multi-drug resistant TB ranging from less than one percent to 3 percent among new patients and approximately 12-17 percent among retreated patients.

Drug resistance among new patients is called primary resistance. It is when a person is infected with the resistant strain of TB directly.

Drug resistance among re-treated cases is more common. This means that drug resistance has been found in a patient who underwent partial or full treatment of tb. Tb patients are advised to complete their full-six months of first-line treatment. Or else the remaining bacteria in the body develop drug resistance.

But, people do not finish their course for various reasons. The reasons could be economic. Say the patient had to migrate for a job. Some patients have an addiction such as alcoholism. Some patients are not counselled about the dangers of not completing course. Some patients just can't tolerate drugs. Some patients put off by a rude or an unsympathetic health provider.

Take the case of Rekha for instance. I met her at Sewri TB hospital this june.

It was 5 pm and they were cleaning the ward. The nurse was asking everyone to get out of the ward Rekha is 18 years old. She was with her mother.

Bahot din se bimar hai?
Is she sick from a very long time?

RM- Haanji! Isko ho gye 2 saal.
Yes it's been 2 years

2 saal me 2 bar ho gya. Dawa band kiya tha na beech me. Khana peena mera majburi hai na hmare ghar pe, khana peena nahi tha isko, isliye bimar padi

This has happened twice in 2 years. She stopped the medicines in between and due to problems at home she did could not eat well.

M(Host)- Before TB, she used to work at a beauty parlour. She had stopped the treatment intermittently.

Toh shuru 2 saal pehle band kardiya tha?

R-Haan 2 course hua band krdiya tha, mujhe goli nahi mili time pe aur khane peene ko bhi nahi.

Yes i stopped the 2nd course, i did not get food and medicines on time.

When I met her, she was barely 25 kgs. Her mother lovingly showed me her old photos when she was healthier.

RM - Haan pehle ki photo dekho, pehle achi thi na iska pehle ka photo dekho hairaan hoga, parlour me kaam krti thi, yeh dekho yeh.
Hmm sundar!

See her old photos, she was so good she used to work in a parlour.
Yeah! Beautiful!

M(Host)- Rekha was so weak that she was not able to work for two years. Her mother was the only one working in the family, she worked as a domestic maid. Her father and brother died some years ago. She said that she ate just once a day. They did not have enough money.

RM- Wahan pe jaati thi goli lene ke liye, do din ka dete the uske baad bolte the yahan jao wahan jao ladki ko leke aao.

I used to go to take medicines, they only used to give medicines for 2 days and after that they used to give excuses like go here, go there or bring your daughter.

M(Host)- But please remember, there are also patients who complete treatment, and are still diagnosed with multi drug-resistant tuberculosis.

Whatever the reason for getting DR- tb maybe, in the 90s and early 2000s, there was little scope for patients to get diagnosis or medicines for the deadly disease in the country. A new patient with government programme was given 4 medicines - rifampicin, isoniazid, ethambutol, and pyrazinamide. These patients came under Category I and the treatment lasted six months.

If the patient failed this treatment and was not getting any better, he or she is called a retreatment case. Such patients would be given the same medicines with streptomycin injections. These patients were under Category II, that lasted 9 months. Most patients whose Category II treatment failed had no options.

In Mumbai, I met Pandurang Edake, a TB health visitor, who is responsible for tracking patients treatment and counselling them. He works in a health post at Shivaji Nagar, which has one of the biggest slums in Mumbai. It is also known to have the highest number of DR- TB cases in Mumbai.

MK- MDR hote the patients hote the na toh usko Cat II Cat II diya jata tha toh kuch maloom nai padta tha pehle aisa nai tha abhi bahot acha

Pehle bahot matlab aise jo patients marte the, Cat II baar baar deke.
Toh inki guidelines yehi hi na

M(Host)- There were many such patients. Manoj Kumar looks after patients with dr- tb and those with HIV in Hapur district of Uttar Pradesh, on the outskirts of Delhi. He used to work as a TB health visitor in the first decade of 2000.

MK- Bahot patients the aise jo hmara conversion rate tha wo 90% tha aur cure rate 85% lekin jo 15% patient the wo wohi the jo MDR aur XDR lere the.
There were many patients, our conversion rate was 90% and cure rate was 85% and the rest 15% patients were those taking MDR and XDR.

Aisa toh nai tha jo CAT II daily aa rha hai unko Bombay ya Delhi bhejo?
Nai aisa koi tha hi nahi aise patient ko hum chronic maan lete the.

M(Host)- These patients were considered chronic.

The patients and their relatives would plead for better treatment

MK- Patient toh kuch nahi kehta tha lekin unke ghar wale kehte the ki abhi toh theek hue hain ab fir dubara bimari ho gyi, toh unki counselling krte the ki humne pehle bhi apko theek krdiya tha ab firse theek kardenge. Chinta mat kro.
Not the patients but their family members used to say that they have just got better and again this disease has happened. We used to do their counselling and tell them we have cured this disease earlier and we will do it again. Don't worry

Aapko kaisa lagta tha tab? Ja koi saadhan hi nahi tha?
How did you feel when there was no way?

I used to think that there should be something for these people. What is the reason behind this disease happening again and again? There should be something.

Kisi se baat kiya aapne?
Did you talk to someone?

Haan consultant se baat krte the, apne supervisors se baat krte the ki inke liye kuch toh hona chahiye, khair kuch hai nahi toh kya karein?

Yeah! We used to talk to consultants and our supervisors that there should be something for them but we couldn't help it because there was nothing.

M(Host)- In 2008, Manoj underwent training with other TB officers in Ghaziabad, near Hapur about MDR-TB. This was the first time they heard about it.

MK- Darr bhi lagta tha hume ki MDR ho gya hai hume bhi MDR ho jayega, hum unke sampark me rahenge. Koi injection lagayega koi kya karega? Uss samay jab programme chalu nahi hua tha bahot darte the log, department ke log bhi darte the.

We used to be scared that they have got MDR what if we also get MDR if we will be in touch with them? Before the programme started, people were really scared of catching MDR even the department people were scared.

M(Host)- So, a treatment that was available and given to people in the richer parts of the world such as New York in the 1990s was not available to people in India even a decade later. Many health workers on the ground working with TB patients did not even know about DR-tB.

In 2007, The government started DOTS-PLUS for treating dr- TB. Only some centres in Gujarat, Delhi, Mumbai, Chennai had facilities to diagnose and treat MDR-TB. But this treatment was not accessible to everyone.

MK- Kyunki ek humare yahan ki ladki thi, unke papa Delhi me service karte the, usne humare yahan se Category II li thi, dubara bhi category II pe aa gyi thi toh fir uske papa Delhi me job krte the toh uske papa ne wahan Delhi me uske tests karaye aur hume baad me pata chala ki ye ladki ab MDR ka treatment le rahi hai toh fir MDR ka treatment jaanne ke liye humne usse achi tarah baat kari ki kansi dawai chal rahi hai? Aur tumhe roz injections lagte hain toh kaisa feel krti ho? Pehle se theek ho ki nahi ho? Jaanch wo humare yahan karati thi, microscopy woh per month humare yahan karati thi.

Because there was this girl, whose father used to work in Delhi, she took category II treatment from here and again she was on category II treatment. Since her father was in Delhi, he got her tests done from there and later we got to know that was taking the MDR treatment. And, we talked to her to know more about the MDR treatment, we even asked her medicines, how does she feel after the injections or if she felt better than before though she used to get her check-up and microscopy done from us.

M(Host)- Wo zinda hai?
Is she alive?

MK- Haan wo zinda hai, shaadi shuda hai, shaadi ho gyi hai uske ache parivaar me, bache hain uske.
Yes she is alive, she is married in a good family and has kids.

M(Host)- Kahan par hai?
Where is she?

MK- Wo Hapur me hi hai.
She is in Hapur.

M(Host)- But many were not as lucky as this girl. Manoj remembered an 18-year old woman who died around 2007. She was a mason's daughter and was studying in school.

MK- Yahan ek humare dost ki beti hai wo student hai, wo student thi 18 saal ki ladki thi, wo dawai khaati thi, jab tak wo dawai IP chali tab tak humare saamne dawai khaati rahi wo.
Here i had a friend's daughter who was an 18 years old student. She used to take proper medicines, she even used to take IP in front of us.

M(Host)- IP is intensive phase where the patient is supposed to be infectious. It lasts two months in a case of simple TB.

MK- Toh tab tak toh wo DOTs tha hafte me 3 baar aati thi, dawai khaa kar chale jaati thi lekin jab jaanch karayi, negative aa gyi aur fir usko CP chalu kar diya.
Till then it was DOTs, she used to come thrice a week to take medicines and when she got her tests done, the reports were negative and then CP was started.

M(Host)- CP is continuation phase where the patient is supposed to continue treatment for another 4 months

MK- Toh unhone kya kaam kiya apne ghar pe Papa mujhe yahan ghar pe chakkar aate hain mai school me khalungi wo dawai usne khaani chhod di, humare saamne ek khuraak kha li baaki 6 din ki wo fenk deti thi.

So what she did was she told her father that the medicine makes her feel dizzy so she will eat the medicine in school and she stopped taking medicine. She only used to take one dose in front of us and the rest 6 days she used to throw the medicine.

M(Host)- The girl got sick again. She underwent category 2 treatment with streptomycin injection. But she continued to be sick. Her father also took her to a doctor in the private sector, Manoj said.

MK- Toh lagatar wo ladki sukhti chale gyi, fir usko dubara humne Categoy II shuru kiya tha lekin category II usko kaam hi nahi kr rha tha fir kyunki wo iss stithi me aa gyi thi, dawai bhi uske papa lene aate the matlab aane jaane layak bhi nahi thi, haath paer bareek ho gye uske matlab haddi haddi bachi aur antim samay me mai gya tha usne bulaya thaki bhaiya ko bula ke le aao, patient ke sath 2-3 saal ho jate hain toh ek acha relationship ban jata hai, usne bola unka bula ke le aao wo bacha lenge, ek aasha rehti hai toh hum unke yahan gye, samjhaya toh fir kuch din baad jo hai wo expire ho gyi thi. Kuch aisi ghatnaaye hoti hai na jo dimag me fit rehti hain.
The girl started becoming weak, we started giving her category II but it also stoped working for her. She was in such a situation that she was not even able to walk, her father used to come to take her medicines. Her hands and feet had become so weak that her bones were visible. And, during her last times, she asked her family members to call me. She had a hope that i could save her. And after a few days she passed away. There are some incidents in life which you can never forget and they always stay in your head.

M(Host)- This slow roll out of MDR-TB treatment cost a lot of lives. This was unconscionable, some experts felt.
Dr Salmaan Keshavjee, the professor from Harvard who spoke earlier, wrote a paper listing out what he called the double standards of Global Medicine.
Keshavjee in his paper wrote that the tools to control the disease were established much before DOTS started. In the 90s, New York had controlled its TB epidemic effectively.

Dr. SK - "This epidemic it's affecting people with HIV. It's affecting homeless and other vulnerable people and it turns out that one in five cases is drug-resistant. and what did they do? Well, they did active case finding. They found index cases.
If people lived in homeless Shelters, they screened everybody in those homeless shelters, they used X Ray, they checked if people were infected and treated them with prophylactic therapy, they used myco bacterial culture, laboratories to figure out if the people had resistant bugs and they treated the resistant bugs using the second line drugs. This was before dots. So remember before dots we knew how the, and the rates in New York just so that you know in places like Harlem the rates of TB was about 210, I can't remember the exact numbers but between 200 and 250 per hundred thousand. The same is India today and they brought down the rates of TB very, very rapidly. I think at the height of the epidemic they had around 3500 cases. So they invested, they brought down the rates and now they are back to just controlling the disease at a very low level."

M(Host)- In most parts of India though, there were neither diagnostics nor medicines available for cases of drug resistance for a little more than a decade
Dr Kamal Chopra, the director of New Delhi TB Centre said that this was justified as per WHO norms.

Dr. KC- DOTs plus shuru karne ka tab hi fayeda hai jab there's a 100% geographical coverage, 93 me DOTs plus nahi aaya tha India ke andar lekin Peru me aa gya tha, 2000 me aya na 97 me jab DOTs launch kiya toh DOTs plus nahi tha na tab Peru mai aa chuka tha toh WHO guidelines thi first make 100% DOTs coverage geographical coverage then second guideline was you should get 85% cure rate agar aap DOTs me 85% cure rate hi nahi nikal pa rahe toh DOTs plus karke kya karoge iska matlab MDR ko treat kar rahe ho usse zada toh bana rahe ho aap toh first geographical coverage then treatment cure rate more than 85%, third then you should have lab support to diagnose MDR-TB.

M(Host)-In 2012, the govt launched the Programmatic Management of Drug Resistant TB for the entire country. This programme provided diagnostics and treatment for DR-TB.
This involved the roll out of the CBNAAT machine, a machine that helps detect drug resistance to one drug-rifampicin in two hours time. Because of this, the number of dr-tb cases increased exponentially, as more cases were being detected. MDR-tb cases increased from 4000 odd in 2011 to more than 16,000 in 2012.

In June, I went to Shivaji Nagar to meet some TB patients on a warm muggy day.

The lanes inside the slums were narrow with a drain flowing inside. I met Mohammed. Mohammed is 19 year old. One has to climb up two stories on a stifling steep staircase to get to him. He was studying when he got TB in 2017.

M- Usse pehle na merko yahan dard chaalu hua tha.
M(Host)- Chhati me?
M- Haan halka halka mujhe laga gas hai theek ho jayega, dawai piya toh araam nahi pada fir.
M(Host)- Kahan se dawai liya?
M- Shatabdi se!

Earlier I had a pain! I thought that the chest pain was because of gas, i took medicine but it did not help. From where did you take the medicine? From Shatabdi.
Shatabdi Hospital is a municipality run hospital in Govandi area of Mumbai.

M- Maalon hi nahi chala baad me check-up kraya, khoon test karaya, blood test karaya, bulgum test karaya fir pata chala yahan pe daag hai.
I did not know earlier, i got my check-up, blood test and cough tests done and then i got to know I have a spot in my lungs.

M(Host)- He is referring to a spot in his lungs detected via X-ray.

M- Yeh 6 mahine continue kiya poora fir okay ho gya sab uske baad fir chalu ho gya fir wapis se 6 mahine aur fir duabara dard chalu ho gya fir dubara wapis ho gya fir MDR.
It started again after the 6 months course and i had to take the 6 months course again and still the pain was there so i had to take MDR.
He took the six month Cat 1 treatment and a nine- month treatment -Cat 2 treatment.

M(Host)- Mohammed was still very very skinny when I met him last month. He was about 38-39 kilos he said. During MDR-TB treatment, a patient has to take about 6 months of injections daily. The treatment is hard with lot of side effects.

M- Khaasi aati hai bahot, bahot cough nikalti hai shuru shuru me bahot blood nikalta tha, darr lagta tha aisa lagta tha pata nahi kya ho gya, ekdum low ho jata tha mai haath paer sunn ho jate the mere aur dard rhta tha, sir dard, ulti, zukhaam, injection ho gya mera 6 mahin ka.
I cough a lot, in the beginning blood used to come out in my cough, i was scared what has happened to me, i used to feel low and numbness in my hands and feet, headache, vomiting and cold. I completed the injection course of 6 months.

M(Host)- Usse takleef hua?
Did it hurt?

M- Haan usse beech me bahot takleef hua. Peeche gaanth waanth aa gyi thi, toh fir madam ne Doctor ne tube di toh usse mera kamm hua tha.
Yeah! I got a lump in my back and the doctor gave me a tube for it.

M(Host)- Gaanth se takleef hui thi?
Did the lump hurt?

M- Haan gaanth se bahot takleef hui thi, baith nahi paa rha tha na chal pa rha tha, itna dard tha, ekdum se sarr ghumta hai, chakkar aate hain, paseena bahot ata hai abhi garmi beech me baarish aati hai toh ulti ghabrahat chaalu ho jati hai. Bas aise hi paseene aate rhete hain mujhe, dawai ka asar rehta hai na mujhe.
Yes! I lump used to pain a lot, i was not able to sit properly it was so painful, I used to feel dizzy and nauseated due to the medicines.

M(Host)- After about six months treatment, he is now able to work a little in his father's barber shop.

Globally in 2015, only 55% of MDR-TB patients were successfully treated. If a patient fails MDR-TB treatment, he or she suffers from extensively drug-resistant tuberculosis that is XR-TB. Only 34% of XDR-TB patients were treated successfully in 2015.

In January 2017, I met a 28-year old woman from Hapur who was declared cured of TB. She was sick for four years before that. She took medicine for simple TB for six months, and then MDR-TB for two years. In her case, she did not get a correct diagnosis upfront- she was resistant to one of the drugs used to treat MDR-TB. I wrote about how she suffered before her was correctly diagnosed. But she got better and was declared cured. I didn't keep in touch

This July, when I visited Hapur, Manoj who was supervising her treatment told me she died. A year after she was declared cured, she got XDR -tb

M(Host)- XDR kaise ho gya usko?
How did XDR happen to her?

MK- Bas dubara bimari.
Again the same disease.

M(Host)- Toh tab hi toh usko bimari khatam hui thi.
But then she got cured!

MK- Nahi ek sal ho gya tha.

No! It happened after a year.

M(Host)- She had two school-going children. Even then, she was worried about them.

Usne sada tb ka b khaya, MDR ka bhi adha khaya, pre-XDR ka bhi khaya, kahin roka nahi usne?
She took medicine for normal TB, Half for MDR and then pre-XDR, she did not stop?

MK- Nahi!
No!

M(Host)- Patient isse zada kya kar skta hai? Bataiye?
What more can a patient do? Tell me?

The lack of patient adherence has been blamed for nearly every single problem the TB programme had. Whether it comes to low cure rates or rise of MDR. But, the lack of diagnostics, medicines, and an alert public health programme has wronged probably hundreds of TB patients.

Since the past 5 years, the government has substantially increased the investment in tuberculosis control and in treating MDR-TB.

Dr. KC- Plus ab TB ke baare me awareness badh gyi hai, do cheezon ke baare me awareness badi hai ek toh TB ke bare me second ab ye awareness badi hai jo public sector me diagnostics aur treatment hai that is equally good. Aaj ki date me kisi bhi state me facility kam nahi hai, aaj ki date me there's full fledged programme and facilities.

The awareness about TB has increased. And now the awareness has increased because in public sector both the diagnostics and treatment are equally good. And, in all the states there are full fledged programmes and facilities.
On paper, there are now diagnostics in every district of the country. Every district can provide treatment for any kind of DR-TB

Dr. KC- Jo communication me problem aa rahi hai that is the only thing is ab humari diagnostic facilities zada hai, humare paas patients zada ho rhe hain, detect zada ho rhe hain kyunki facilities zada hain sabse badi baat hai MDR nikal aya wahan zada cases ab kehte hain hum MDR zada nikal aya zada nahi nikal aya pehle bhi tha the only thing is diagnostic facility nahi thi.
The only problem that is arising in communication is now that we have diagnostic facilities, the more patients are detected. And, in case of MDR, earlier also there were many cases of MDR but there was no diagnostic facility.

M(Host)- In 2017, the WHO estimates approximately 1.35 lakh MDR cases in India..of which the government has been able to detect only about 40,000 cases and start treatment.

In 2018, the government released a nation-wide study on dr-tb in India. It was found that among TB patients who were studied, more than 6 % had MDR-TB. Nearly 3%% of new TB patients, meaning those who never underwent any TB treatment in their lives, acquired MDR-TB. The survey also revealed that 28% of TB patients had resistance to any one of the 13 TB drugs. These wild patterns of resistance makes it harder to diagnose the patient correctly and give the right treatment.

This when a little more than half of the MDR-TB patients and only a third of XDR-TB patients were successfully treated.

TB which was eminently curable becomes harder and harder to cure. This is when it became a public health emergency.