

## Speaking for Myself

### Swami Ramdev and scientific medicine: Losing is fine, but the lesson should not be lost!

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'Swami Ramdev is really cool; I have a lot of faith in him.'

This was my colleague Dr Joginder Singh. We were making small talk as we waited for a guest lecture to start. Jogi, as we affectionately call him, is a general physician at my hospital. He isn't a very religious sort of a guy, as one might expect him to be from this nickname. On the contrary, he has a reputation of being very scientific and sincere in his approach to patients.

I was aware of the raging controversy about Swami Ramdev. He is a *yoga guru* who claims to have cured many patients with varied illnesses. Despite having read a lot about him, I had never felt that the Swami's teachings could be relevant to me in my practice of medicine. Like many other preachers, he was also making tall claims without any scientific basis, I always thought.

'Why do you say so?' was all I asked at that time.

'Look at me. Do you notice anything?' He countered me with another question.

I scanned him with a clinical eye but could notice no signs of any illness. 'Hmmm... You look fine to me—trim and fit.'

'Exactly! It is thanks to Swami Ramdev. Three months back I was overweight and used to have wheezing at rest.'

At this moment the guest lecturer arrived and our conversation was cut short. After the guest lecture, the organizers invited the faculty for a cup of tea and I caught up with Jogi again. 'I find it hard to swallow that you have fallen for such unscientific claims!'

'Okay, don't believe me. Get up early tomorrow morning and watch one of his TV sessions. More people go to see him every morning than you'll see at a cricket match.'

'And what does he do?'

'He shows you simple *pranayam* exercises, and makes you repeat them with him. While doing that, he talks to you. It's more than what many of you superspecialists do in your practice!'

He was a staunch generalist and felt that superspecialization and consequent overdependence on technology was killing clinical medicine. We had had a friendly banter going on this subject for several weeks.

'Talking is fine, all your ministers and opposition leaders also keep doing just that. If I am not mistaken, your Health Minister also does not believe that your Swami is so cool!'

'Well, I would not comment on the Hon'ble Minister's opinion.' He took in a deep breath and said, 'But, let me tell you my experience. I started doing *pranayam* exercises with Swamiji about 3 months back in front of my TV set. Only for about 15–20 minutes every morning. And I have lost weight around my tummy and my wheezing is all gone.'

'Where is the scientist in you? You'll lose weight due to any

regular exercise. And asthma is seasonal, it will come and go. You are supposed to follow evidence-based medicine (EBM).'

'AC, sometimes I worry about your EBM.' He went on, 'My own considered opinion is that science is meant for asking questions and learning from the answers as it teaches us how to think. In medicine, searching for the single best treatment, when no single treatment works for all patients, leads to a sort of intellectual tyranny—and you call it EBM. With EBM, you create a situation where taking an alternative management route becomes substandard and unethical.<sup>1</sup> In any case, tell me! What is the evidence that EBM works?'

'Jogi, I am serious. Is there scientific evidence that his exercises are better than just any other exercises?'

'The answer to your question will depend on what kind of answer you are looking for.' He was now calm again. 'If you are looking for publications in peer-reviewed journals, you have to read them, there are quite a few. Some may call it level two evidence.'<sup>2–10</sup>

He went on to quote some papers which showed that *pranayam* is effective and ended by saying, 'I agree that there are no randomized controlled trials, but that is because no one finds any profit in doing them. Drug firms would not like to waste money on research on yoga. I think it was you who wrote somewhere that the subjects chosen for medical research today are largely decided by the pharmaceutical industry!'<sup>11</sup>

I was not going to give in easily. 'But we do have governmental funding for such research projects!'

He again took in a deep breath. 'Let's start from the basics! Have we investigated the benefits of the medicine that we are practising?'

He had some startling news for me. 'Maybe 90% people taking treatment from us do not benefit at all! Some senior physicians hold the view that probably only about 10% of people with various ailments benefit!<sup>12</sup> And that too at a staggering price!'

I wanted to start an argument, 'I do agree that medical care is expensive today....'

He cut me short, 'I am not talking of price as in money. Have you seen the reports that claim that even in one of the most advanced countries, the third commonest cause of death is medical misadventures?'

And then he rattled out some startling statistics, 'In the USA during the year 2001, the annual death rate for heart disease was 699 697 and the annual cancer death rate was 553 251. During the same year, it has been estimated that the number of unnecessary medical and surgical procedures performed annually was 7.5 million. The number of people exposed to unnecessary hospitalization annually was 8.9 million. The total number of iatrogenic [induced inadvertently by a physician or surgeon or by medical treatment or diagnostic procedures] deaths was

783 936.<sup>13</sup> In fact, some say we may be underestimating the havoc our system of medicine is causing!<sup>14-17</sup>

I was aware of these publications and did not know what to say. 'So, you feel Swami Ramdev's system is better?'

He sounded more philosophical this time. 'I know that my knowledge is very limited. If I was sure that system B is better than system A, I would have defected to B long back. But honestly, I do not know if any system of medicine is better than the other.'

I persisted, 'At least our system is scientific. Our therapies give reproducible results.'

He did not sound very sure. 'Yes, that is what we all believe. But do we really know?'

I became concerned about the way he was talking today. 'Why have you become so uncertain about the medicine that you practise today?'

This time he was more sure, 'Okay, let me tell you about two real patients. One of them was treated by you at your hospital. The other one decided to go to Swami Ramdev. And then you may like to compare the outcome in your mind and give me your thoughts about their fate.'

'Which one of my patients are you talking about?' I knew my voice now sounded unsure and worried.

'Do you remember, some time back your close friend Dinesh had brought his mother to you?'

That name brought a few memories rushing back into my current stream of thought. I remembered and instantly understood why Jogi wanted to remind me of her. The whole incident was still fresh in my mind and I had even discussed some thoughts with Jogi when she was still with us.

I clearly remembered the day. I was sitting in my gastroenterology outpatient when Dr Dinesh had walked in and said, 'AC, Ma is not well. I want you to have a look.'

Dinesh belongs to a highly educated family. I had often heard him talk about his mother. She was a great and austere lady who had tirelessly devoted her life to bringing up and educating her children. All her children held very important posts and had everything that this world could offer. And they too were very devoted to her. She was 88 years old at the time and for the past few days was refusing to eat. 'Leave me alone, I do not want to eat,' was all she said repeatedly.

This had caused a lot of distress among her children and they had brought her to me.

When I tried to talk to her, she said, 'I don't want any medicines. I have lived enough, and now I want to go.'

I felt she was depressed, which is not unusual in old age. Examination showed that she was lying curled up in bed. Apart from that and a doubtful resistance to neck movement, there were no positive findings. I told Dinesh, 'I would like to rule out a few things such as electrolyte disturbances, an intracranial space-occupying lesion (ICSOL) or chronic meningitis. Is it all right if we admit her in the hospital?'

Ma opposed this idea as strongly as she could but her children rallied around my suggestion, convinced her and got her hospitalized. I ordered all routine investigations and got a neurology consultation.

The neurologist asked for a CT scan brain and did a cerebrospinal fluid (CSF) examination. The latter showed marginally raised proteins and pleocytosis, enough to consider a provisional diagnosis of tuberculous meningitis. While microbiological studies were ordered, she was started on antituberculous drugs.

Since she was refusing to take anything by mouth, a nasogastric tube was inserted for feeding, and an antidepressant was added.

Intravenous supplementation of nutrition was also started. A few days of intensive nursing care gave us the impression that she was showing marginal improvement as she was now more responsive and also angrier with what we were doing. She had, in addition, developed constipation since admission and needed repeated enemas. Not unusual for old people on medications such as antidepressants, especially when they ate and exercised poorly.

A fortnight later, her level of consciousness deteriorated and she lapsed into coma. Our neurologist shifted her to ICU and suspected development of hydrocephalus, a complication of tuberculous meningitis, which was confirmed on the second CT scan. A shunt procedure was done, which led to some transient improvement in her sensorium. Over the next week and a half, she continued to have a few minor problems, such as febrile reactions to intravenous fluids, ecchymotic patches at most intravenous access points, respiratory infection, progressive hyponatraemia and gross pitting oedema due to progressive hypoalbuminaemia.

All through this period, her children were very concerned and supportive. They would sit around and talk to her even when she could not listen. Finally, she had aspiration pneumonia requiring ventilatory support to maintain saturation and a few days later developed features of septicaemia. Activated protein C and a host of antibiotics were given but her response was minimal, if any.

One evening when I was re-evaluating her along with Jogi, I became thoughtful while looking at that great lady lying helplessly on an ICU bed, connected to so many machines, grossly oedematous with peeling skin and multiple purple patches all over. And at this point, I remember having had this conversation with Jogi.

AC: 'Jogi, do you think it was an error to hospitalize this lady? Look at her, I feel pained to have put her in this situation. She appears to be surrounded by machines that have pushed all her dear ones several feet away. This distance must be appearing much more to her, if she can perceive. All she wanted initially was to be left alone at home with her dear ones holding her hand!'

Jogi: 'I do not think so. We are duty bound to treat when a patient comes to us with a disease.'

AC: 'But look at her now. We seem to be so much focused on the disease that the feelings of the "person" who has the disease have taken a back seat. We have forgotten what she wanted.'

Jogi: 'If a person is depressed, he or she may want to commit suicide. Do you think we should honour the patient's wishes?'

AC: 'I agree with you there, we should not. But maybe, now that hope is fading, I have started thinking from the end-of-life situation. Our technological advances make me wonder if anyone can have a natural death in 2007! Some disease or other will always be there to threaten life in the end. I wonder if anyone today dies a natural death without getting a few coronary stents or a coronary bypass surgery or ICU care and dependence on these machines?'

Jogi (impish smile): 'I guess all those who can afford coronary interventions and ICU care will get these procedures, but others who cannot afford them will die a natural death!'

That's how the conversation had ended.

And this lady passed away after a few days despite all efforts to keep her with us.

Another day, while talking about the same patient, I had told Jogi about some rough calculations in my mind, 'Jogi, if this treatment was given in a private hospital, the total cost of care would have been close to half a crore of rupees. And what would this expense finally buy her? Depersonalization, the pain of needle pricks, distance from her loved ones, strange people forcing all sorts of tubes into her body against her wishes and still stranger chemicals doing awful things in the body.'

He, like a good friend, had tried to reassure me, 'Well, it could have saved her from death. Only it did not!'

Coming back to the present, I had no doubts why Jogi wanted to remind me of that case. He wanted to use my own thoughts as arguments against me.

He presently said, 'If you remember that lady, then tell me why did the relatives, who themselves were learned doctors, bring her to hospital? Did they not know that these eventualities are not unexpected when one treats a patient in her eighties and nineties?'

I tried to think, 'I guess they loved her too much. They hoped that they could bring her to normal and have a few more years with her. A mother is after all a blessing.'

He thought otherwise, 'There is more to that. First, our formal education and pursuit of careers has taken away from us the patience and wisdom to face some hard truths. When we learn to be big doctors, we forget that many times what a patient really requires is nursing—a *kind touch and a loving presence*. What we are used to providing is a pill or technology, proven by dubious statistics.'

I looked at him with surprise, 'But in the same situation, would you not consult a specialist to treat the patient?'

He said, 'I would, for more reasons than one. First, I would not want to miss out on an easily curable disease. To be honest, an equally important factor would be that I would not like to be accused by my relatives of doing nothing for my mother while I and my wife were working in a hospital! Maybe I would also admit her to a hospital to ward off such sarcastic comments from relatives.'

I was confused now, 'I do not understand what you are trying to say.'

He again started with a smile, 'Now, let me tell you about the second patient. I have a friend who is a General in the army. His mother had cardiac failure and she was being treated by me. As I have been taught, I advised him to get his mother hospitalized many times. Every time, he would say, "Let's see for a few more days. If she does not improve, I will bring her in."'

I could not guess where his story was heading.

'During the four months that she was being followed up by me, she would often be brought in a very sick state either due to drug-induced dyselectrolytaemia, postural hypotension, or side-effects of digitalis. One day the General informed me that he wanted to take her to Swami Ramdev! That's how I learnt that there is someone known as Swami Ramdev. Look at our ignorance!'

My skepticism was back, 'Did Swami cure her?'

'Just listen for a while! After that day he stopped bringing her to hospital.'

'Didn't you try to find out what happened?'

Jogi's answer was very plain, 'I met this General last week again at the Army Day Parade. He informed me that his mother had died peacefully a few weeks back at home.'

I felt as if I had won a round, 'So even your Swami's treatment did not work?'

He again looked straight into my eyes and said, 'Can you really say that? Look! No one is immortal. The General was quick to realize this fact while your friend Dinesh was not.'

I butted in, 'But where does Swami Ramdev come in?'

'I think it was a very smart move by the General. In the final analysis, Swami Ramdev gave them hope, which is more than what we did. We gave her some cold statistics—50% risk of dying in less than a year, and miserable side-effects of the drugs we prescribed. Second, the General silenced all his relatives by saying that medical treatment was not helping and therefore he

had consulted the famous Guru. As I understand, the Swami prescribed a complicated regimen, which kept him mentally occupied and gave him a sense of involvement in the care of his mother. And his mother, by doing those manoeuvres, also felt that she was getting better, by trying traditional treatment about which she had heard from childhood. She also felt spiritually at peace. When she passed away, I think everyone was satisfied that it was inevitable.'

'And what about actual EBM treatment for heart failure?'

'Medical treatment was not stopped but converted to an *ad lib* regimen. Precautions such as salt and fluid restriction continued. Diuretics were taken when the oedema increased, and so on. They broke free of the strict supervision and compulsion to try the highest tolerated doses to achieve near normalcy.'

'And you say Swami Ramdev succeeded where our medicine failed?'

'Success depends on what you define as your goal. If bringing her back from the clutches of death was the goal, I guess both failed and nature won. If cost, comfort and mental peace were to be evaluated, I guess the Swami's approach won.'

I looked at him in agreement. 'The basic lesson is very old. We need to recognize the situation where our aim should be changed from "adding years to life" to "adding life to years", isn't it?'

He added, 'Yes, and the biggest thing is that Swami Ramdev's approach is nearly free, and is available on your home TV. No more waiting in crowded corridors, and dealing with impersonal staff!' He looked at me again, 'That's where complementary medicine scores! For Indians, it's culturally more acceptable, being a part of our upbringing. It is inexpensive and seemingly less harmful. I guess it has a great placebo effect. Maybe there is a science behind it too, which we have not yet recognized!'

I was critical about Swami, 'What I don't like about the Swami is his tall claims! He says he has a cure for everything.'

His answer was equally calm, 'The problem is with our minds, which are tuned to commercial ventures. While showing you *pranayam* exercises, he talks to you—primarily to keep you motivated into doing it religiously. The crowds that collect around him show that he is successful in motivating people. It may be our mistake to take his words as tall claims!'

I was still not convinced, 'But what we do is based on evidence and does save lives!'

He laughed, 'You don't give up, do you? AC, I am not so sure that we are actually saving lives. If you look at the balance sheet, the bottom line may surprise you. Should I tell you about another incident? This one has been published in your peer-reviewed journals.'

My voice was now getting softer, 'It better not be from shady journals printed by interested parties!'

'*Lancet*, *BMJ* and *New England Journal of Medicine*, would they be acceptable to you?'

I had to keep quiet. He went on, 'You see, this information about our medicine came to light when doctors went on strike for over four months in Israel.'<sup>18-20</sup>

I was vaguely aware of this story and had heard about it long back, 'What happened during the strike?'

He smiled, 'The bottom line was presented by the burial services, who intimated that death rates had dropped by 39% during the strike!'

'This must be a chance finding!'

He smiled at me with self-assurance, 'What if I told you that the strike in Israel not only led to a drop in the mortality rate to near half, but it also greatly concerned the morticians. These people

then ran a study of their own and discovered that the last time the mortality rate had dropped so low was 20 years previously, during the time of the last doctors' strike! And just to confirm these findings, in another doctors' strike in Los Angeles, the mortality rate fell by 17%.<sup>21</sup>

'You mean if all hospitals were to close down today, people will stop dying?'

'Exactly, if we really consider all that I have told you, the message is clear. The number of lives we save may be fewer than the numbers that die due to iatrogenic disorders.'

I was now uncertain but not really ready to give up. 'But science has advanced so much in recent years! Many new miracle drugs have now become available. What you are telling me must be old stories.'

His last comment stunned me. 'AC, I see around me very aggressive specialists using more and more invasive and risky treatments. I was talking to our cardiologist yesterday and he frankly admitted that more than half the drug-eluting stents in India are being inserted for off-label indications. And you know the problems related to them.<sup>22,23</sup> Such aggressive use of new technology makes me think that we are witnessing a gradual metamorphosis of the medical profession into the front office of the pharmaceutical and equipment manufacturing industries. Your own paper<sup>11</sup> had hinted how little science can influence medical research and development. You can update your knowledge on the subject by reading the cover page article in *Forbes Magazine*—“How the drug industry abandoned science for salesmanship!”<sup>24</sup>

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