

Accountability in medical research

A. S. Paintal

Clinical trials of new drugs or formulations are carried out in several establishments in India after obtaining permission from appropriate authorities. The ethical committees that approve these trials consist of scientists and others. Subsequently, in many cases, influence is applied on committee members and pressure on authorities to approve the drug for further more extensive trials or for general use. I have myself been a near-victim of such influence being applied in one case. In this case a clinical trial revealed highly undesirable side-effects of the drug but the makers of the drug insisted that the effects be overlooked and the drug approved. I almost approved the drug owing to the pressure applied from various sources but finally I rejected it. We recommended that it be tried at a lower dose. The side-effects did not appear at the lower dose. Imagine the consequences if I had, owing to strong pressure, approved the drug for general use at the earlier higher dose. Disastrous consequences would have occurred. Several women would have suffered because of the drug. They would not have suspected that the drug was the cause of their problems and no one, including me, would have been held accountable under the present system existing in India.

I suspect that such situations occur quite frequently in India. In fact in one case, clinical trials of a vaccine are under way in spite of the known fact that it could cause harmful effects on the women receiving the vaccine. This vaccine produces antibodies that cross-react with a normal hormone (leutinizing hormone) produced in the body. Thus there are possibilities that the antibodies could in some way through immuno-pathological effects damage the pituitary or the target organs on which the leutinizing hormone acts. It is my impression that one of the reasons why this vaccine with its inherent dangers, was permitted to go in for a clinical trial was because a similar kind of vaccine made in the United States was also to be tried out in a similar way. I therefore wrote to the authorities concerned in the United States and was informed that they had not been permitted to carry out a similar trial by the US Government. While appreciating this act of the US Government I wrote back to say 'It is important for Governments responsible for the health of people and for providing moral leadership to be

scrupulous and I therefore admire the US Government in their approach to researches on contraceptive technologies'. I further added as follows:

For us in India, it is important that the decisions taken in the US or Europe are based on the highest ethical standards in order that a good example is set for others to follow. This is particularly important for us because of the greater frequency of occurrence of cases of scientific misconduct in India than in the US or Europe. In this connection it is unfortunate that certain Indian scientists well known for being unscrupulous or guilty of gross scientific misconduct were supported in the past by certain agencies and highly influential scientists in the US and Europe. This support given in the past is now causing serious problems in India because as a consequence of past precedence arising from exoneration of guilty scientists, Indian authorities now seem to be powerless in taking punitive action against individuals guilty of gross scientific misconduct perpetrated, or brought to light, more recently. For this reason it will become increasingly difficult to ensure that international standards for toxicity testing and clinical trials are observed. We need help from WHO and agencies such as ...

It is the view of experts in the field that any vaccine that produces antibodies that cross-react with normally occurring hormones in the body must not be advocated. It is not ethical to continue with tests on normal human beings with such vaccines because long-term effects cannot be ruled out, even though in the short term the undesirable effects are not visible using the methods of investigation and assessment available at present.

As I have already stated, apparently clinical trials of this vaccine were approved in India partly because similar trials were being planned by a US organization. However, since the US Government has denied approval of these trials through denial of financial support, it follows that the concerned authorities in India must terminate or at least suspend these trials. The Indian Council of Medical Research should lay down strict guidelines on the lines approved by the WHO for clinical trials of vaccines. It must be stated clearly that if antibodies produced by a vaccine cross-react with normally produced hormones, it must not be pursued further. In the present case the future health of many women is at risk.

This raises the question as to who is to be held accountable in case some undesirable side-effects appear in any of the women involved in the trials. Do we hold the investigator accountable or do we hold the agency that approved of the clinical trials? Or should we

Plenary lecture given by A S Paintal during the Jaipur Session of the Indian Science Congress on January 4, 1994

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not hold the committee members, specially its Chairman accountable since it would be his committee that approved of the clinical trial. Modern medical research is Western in origin. If we wish to take part in it we must follow the rules and conventions followed in Western countries. Accountability is an important feature in medical research. For instance, a few years ago the death of a laboratory worker occurred in Britain owing to an unfortunate accident relating to the release of a virus in the laboratory. The head of the laboratory held himself accountable and killed himself. In another incident a paediatrician killed herself because she felt accountable for the death of an infant caused through negligence of her juniors.

Such feelings of accountability do not exist in India. Scientists and people concerned do not even feel sorry for the death and suffering of people. In fact, one secretary to the Government of India chided me. 'Why are you so bothered about AIDS Dr Paintal. Let them die, it will help reduce the population. Such callous attitudes seem to be common – unfortunately, in the case of people who hold power and have political patronage. *Political patronage of unscrupulous scientists is one of the most unfortunate things that afflicts Indian science.* Scientists seem to get anything done through lobbying, by maintaining a high level of PRO activities so they feel unaccountable to anyone. Since self-imposed accountability does not exist in India as it does in certain western countries, India should develop a system for holding scientists accountable for the suffering of others. However, it would be much more desirable if medical scientists adopted self-imposed accountability. Even good Indian politicians like the late Lal Bahadur Shastri did so. Further, it would be appropriate if government and authorities such as the ICMR developed yardsticks for holding individual scientists, chairmen of committees accountable for undesirable effects that occur in unsuspecting human beings as a result of their actions or decisions.

In the past certain scientists have carried out scandalous clinical trials. For example in 1973–74 certain scientists carried out clinical trials using a preliminary anti-fertility vaccine preparation without at first carrying out the minimal toxicity and other safety tests. They injected this vaccine into unsuspecting uneducated women. Although this was condemned by certain other scientists at that time, they were hailed by their own institution. In this case I think the then head of the institution and the individual scientists concerned should be held accountable for this highly unethical act. The then Health Minister regretted this episode after he realized that he had been misled. I think all concerned should be reminded of this event. They should be made to regret this episode and they should at some appropriate forum express this regret publicly in order to demonstrate that individuals in responsible positions are accountable.

Money, both Indian and foreign, is freely available for carrying out clinical trials on the poor uneducated Indian population. It is my view that certainly in the case of anti-fertility drugs such clinical trials are not necessary as revealed by my own experience during my tenure in the ICMR. Nothing substantial is to be gained by research and clinical trials of drugs already known to be useful and harmless. India has wasted a lot of time and money in this activity and gained nothing. Those South Asian countries which did not do any clinical trials or research on antifertility drugs have benefited the most as revealed by a survey carried out by the Operations Research Group published in 1989. For example what was the logic in carrying out extensive clinical trials over long periods of the well-known and extensively used oral contraceptive pill (OCP) which was known to be safe and which did not produce undesirable side-effects in millions of women who had been taking it? India lost about 20 years of use of this pill. It was only recently that it was approved for sale over the counter so that Indian women, like their affluent counterparts in rich countries, could acquire the freedom to control their own pregnancies and avoid the complications of uncontrolled child birth. This right to control their own pregnancies is still denied to them by ensuring that they continue to be illiterate and uneducated.

Who is to be held accountable for denying the OCP to them? Certainly governmental authorities are one of the agencies. When questioned they say 'We have to go by the advice of experts'. One has therefore to assume that the experts have advised against the use of the OCP. It was partly the propaganda 'Why worry about the pill, the anti-fertility vaccine is just round the corner' was one cause for inaction relating to the OCP. Possibly another cause may have been that India could make its own OCP and other competitive agencies with their own drugs and devices were interested in preventing extensive use of the OCP. The result, as revealed in a survey done by the Operations Research Group (1989), showed that India was the only country in South Asia where the use of the OCP was 0% in contrast to certain other South Asian countries where its use was about 59% e.g. in Mauritius. Thus the birth rate in Mauritius had fallen to 19 whereas India's was still about 33.

It is most unfortunate that this has come about, i.e. that millions of Indian women are allowed to continue to suffer unnecessary pregnancies in their immature years leading to post-partum deaths and complications associated with child birth. ICMR was seized with this problem in 1986 and so it started work on programmes that would promote the development of young women. They started organizing young women's centres and camps. Dr Bano Koyaji had succeeded in attracting many young girls to the camps she had organized. To me it appeared that we were on the way to achieving success in providing a model through which girls

between the ages of 9 and 16 could be provided special facilities and special instruction and resources of several kinds. It is important to realize that we must devote much more attention to these girls. It is very good that a decision has been taken to make women in general literate, but in my view, it would be far more profitable for India to spend the available resources on the girls i.e. the younger section of the female population. The special education that could be given to them will raise their image in society, empower them in several ways and above all, enable them to control their own pregnancies. Girls must be convinced that if they wish to have healthy babies they must produce them only when they themselves are mature enough to have good babies, i.e. when they reach the age of 20. They must be convinced that it is pointless producing babies that are inferior in both brain and body.

I think this programme of developing young women must be looked at carefully and quickly. We must provide large sums of money for developing and providing programmes for their education, specially health education with the specific aim of empowering them to control their own pregnancies and enabling them to have only healthy babies which they can do by having their first child at 20. As everyone knows simply enacting laws that prohibit them from marrying before 15 has not worked at all. How much money is required

for these programmes. I think a sum of about Rs 30,000 crores to be spent largely on the young women of the BIMARU states as defined by Dr Ashish Bose could be considered a reasonable sum. Let people like Dr Ashish Bose and Dr Banu Coyaji under the umbrella of the ICMR be entrusted with the job of providing a model quickly – a model that can be modified (for different states) as one gains more experience.

All of us realize that we have a disaster looming before us with an unthinkable population size. We have a large unplanned population largely because we have neglected the young women, ensured that they continue to be our slaves for meeting our social and personal needs. We will continue to have unplanned children unless we devote all our attention to the young girls. The present state of affairs is the result of intellectual lethargy. I have often said that our post-independence intellectual classes are mainly lotus eaters, only wishing to take painless decision in order that they can carry on their lives in comfort, go abroad frequently for meetings and conferences, unperturbed by failures or having to take far-sighted decisions that could lead to failures. They are all good internationally inclined scientists, respectable committee men who never rock the boat. All these people have never been accountable for any decisions they have taken or not taken. Society must now insist on accountability before it is too late.

Science in India*

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India's place in science and technology had its peak especially due to its pivotal position in mathematics and astronomy long before the era of Aristotle and Plato. Its textile had the global distinction. The age-old Indian philosophy, mythology and way of life have had ingredients of deep-rooted systematization of knowledge that are now rediscovered, reinvented by most powerful tools capable of probing the secrets of nature. Many famous authors of science fictions like Sir Arthur Clark do not hesitate to appreciate the great marvels of the ancient Indian scriptures. However, during the last 5-6 centuries, it has received a setback. As if to add to our handicap, the industrial revolution of the western world took place when India had been shackled under colonial rule. During the later part of 20th century extraordinary

rapid growth in scientific knowledge coupled with technological innovation and expansion took place. When such extraordinary rapid developments were in motion, India attained its independence. At that time, in the name of technology, India had only a few obsolete textile and sugar factories and produced almost nothing of what the country needed. This was coupled with a stagnating agriculture.

A number of scientists feel that immediately after independence India should have taken the responsibility for research and development without having been unduly dependent upon or directed by any country or international organization. This possibly would have provided India with the competence not only to select the right kind of technology but also to define, innovate, execute and complete the whole processes successfully. Unfortunately this was by and large not done. Even now, it is not too late. The strategies in the sphere of science and technology adopted by India should be to a large extent indigenous. It may, therefore, be necessary to

*Based on the Presidential address delivered during the 81st Session of the Indian Science Congress, Jaipur

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