Health warning: injections can endanger health

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Introduction

Everyone wants injections. Health workers want to give them. Yet injections are not risk-free. Unless clean, sterile needles and syringes are used, viruses such as those causing hepatitis and AIDS; parasites and bacteria can be transmitted from one person to another. The muscle into which the injection is made can be paralysed if the child already has the polio virus in his body. In India, where only the rich can afford disposable needles and syringes; many, often unnecessary injections are given with soiled, contaminated needles and syringes with disastrous results.

Despite the frequency with which those receiving injections develop abscesses and hepatitis[1] there has been little discussion on the subject. Most of the studies have been made by medical anthropologists[2,3], very few by Indian doctors.

Unnecessary injections and iatrogenic poliomyelitis

Indian pediatricians have commented on the paralytic poliomyelitis in children given injections for fever. No discussion or campaign to reduce the number of injections followed. A definitive study has shown that not only the pattern but also the severity of paralysis is changed by injections'[4]. Since 1980 unnecessary injections have probably produced paralysis in more than 600,000 Indian children who might, otherwise, have got away with non-paralytic polio and worsened paralysis in another million children.

This man-made disaster is brought about by mothers convinced of the power of injections and health workers willing to oblige on extra payment. Whilst the World Health Organisation (WHO) has, at last, started a campaign for sterile EPI injections', unnecessary injections for upper respiratory infection, pain in the abdomen, 'vitamin deficiency' will continue to take their toll.

Doctors who give injections

Doctors choose to ignore the dangers of injections. Other health workers and the lay public do not understand them. Doctors tell patients, 'You had poison throughout your body. My injection has caused the poison to be drawn into the injection site, leaving your body cleansed. Now if you go to the hospital, the doctor will be able to remove this poison.'

Individual doctors, medical societies and colleges, Government and other health authorities have an ethical duty to educate the public on the dangers of unnecessary injections and exert collective pressure on health professionals.

What should the individual doctor do? It is difficult for the doctor to refuse to give injections if patients demand them. The doctor may try and explain the risks and persuade patients to accept pills and syrups instead. If the patient insists, should the doctor give an injection, perhaps of sterile water, as a placebo? What should he charge? The patient would expect a prescription and to pay for the drug injected. How would other doctors react to a threat to their own practice of giving unnecessary injections? A doctor trying to educate patients might well lose patients, a sizeable portion of income and, in addition, provoke the hostility of other doctors. Local health workers and pharmacists might well begin whispering campaigns. Disgruntled patients might talk.

Sometimes the sterilising equipment is not usable: in Ahmedabad in 1984, 40% of sterilisation drums were defective and of 14,000 doctors, 5,000 had no sterilising equipment; there were also 4,000 unqualified doctors[6,7].

Grounds for hope

Against this gloomy picture there is some hope. In Nigeria, one doctor was able to stop all unnecessary injections in his rural practice although the policy was not popular at first[8]. Doctors in Togo, Africa told an American epidemiologist that mothers preferred their children with malaria to be treated by injections[9]. When the mothers were asked, 56% preferred oral treatment and only 10% preferred injections. Of the former group, 71%, aware of the injection abscesses and the risk of paralytic polio after injections, said there was no risk 01' paralysis from oral treatment.

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Abscess book in every Primary Health Centre (PHC)

Abscesses are common and could be used as a marker for the spread of other infectious agents (such as the hepatitis virus) with a much longer incubation period. At every PHC, one person should be entrusted the task of recording every patient with an abscess after an injection seen at the PHC, noting whether the offending injection had been given at the PHC or elsewhere, what was injected, the illness for which it was given or whether it was for immunisation[10].

Such a record will serve two purposes. It will help monitor the extent of the problem locally and provide statistics for administrators. It will also provide an indication of the likely transmission of hepatitis and AIDS viruses. In the Indian subcontinent, patients receiving repeated injections are more likely than controls to have serum markers for hepatitis B infection, 50% against 26% although none of the 200 patients gave a history of hepatitis'. The second purpose will be to monitor the effectiveness of sterilisation of equipment. The records could form the basis for educating people who clamour for injections. All doctors should keep a record of injection abscesses.

The medical profession

The dangers of injections are rarely, if ever, discussed at medical meetings and conferences. There are few reports in the medical literature. An editorial on this subject, prepared for an Indian journal was accepted, but appeared many months later, cut and as a letter. More recently, several editorials have been published[11,12]. Now that WHO has joined battle against unsterile EPI injections, medical journals and societies should debate the abuse of injections and educate their members.

In Europe, America and Australia, a patient suffering an abscess after an unsterile injection might sue. Lawyers would be quick to bring suits against doctors and hospitals. Defensive medicine in the US leads to unnecessary tests, just to be on the safe side but doctors are unlikely to give unnecessary injections. Who will be the first Indian to sue?

Conclusion

It is impossible to quantify the iatrogenic illness caused in India by unnecessary and unsterile injections, but it must be considered a disaster. Many suffer unnecessary illness. The poor pay for unnecessary, ineffective, dangerous treatment and are then faced by further illness. If they must safeguard their income, doctors must think of new methods of payment which do not depend on giving injections.

There is scope here for research which does not require expensive facilities and in which doctors can work with sociologists and economists.

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Whoever takes up medicine should seriously consider the following points:

Firstly, that he must one day render to the Supreme Judge an account of the lives of those sick men who have been entrusted to his care. Secondly, that such skill and science as, by the blessing of Almighty God, he has attained, are to be specially directed toward the honour of his Maker and the welfare of his fellow-creatures; since it is a base thing for the great gifts of Heaven to become the servants of avarice or ambition. *Thirdly,* he must remember that it is no mean or ignoble animal that he deals with... *Lastly,* he must remember that he himself hath no exception from the common lot, but that he is bound by the same laws of mortality and liable to the same ailments and afflictions with his fellows. For these and like reasons let him strive to render aid to the distressed with the greater care, with the kindlier spirit and with stronger fellow-feeling.

Thomas Sydenham (1624-l 689) in *Medical Observations* (1 st edition).