Seroprevalence of Antibodies After Vaccination Against Poliomyelitis

Sir,

The report of six cases of paralytic disease in the Giza area of Saudi Arabia has stimulated surveillance of live poliovaccine-induced immunity in 72 children who had received three doses of trivalent oral vaccine (TOPV). Serological tests on 64 sera from Najran and Al Gassim regions demonstrated 41 triple-antibody positives, four triple-negatives and 19 negatives for one of two poliovirus serotypes. The initiation of a national study by the Medical Research Department of the Ministry of Health to identify the factors responsible for low seroconversions following TOPV use in Saudi Arabia is highly commendable and timely. Nevertheless the type 1, 2 and 3 seroconversion rates of 76.6%, 84.4%, 71.9% in Najran and Al Gassim regions of Saudi Arabia, do not differ significantly from mean rates of seroconversion in developing countries elsewhere of 73% for type 1, 90% for type 2, and 70% for type 3. In the neighbouring Oman, there has been recent evidence of widespread viral transmission among fully vaccinated children, including paralytic poliomyelitis. An eradication of poliomyelitis would be feasible through adoption of the Latin American strategy in the near future in Saudi Arabia itself.

A comprehensive strategy for poliomyelitis eradication has been in vogue for the past 5 years in different countries of the Latin American region, and includes an achievement and maintenance of high immunization levels, effective surveillance to detect all new cases and a rapid response to the occurrence of new cases. The high TOPV coverage was achieved through routine administration of vaccine by the regular health service facilities, and by observance of national 'immunization days'. The national immunization days were observed twice a year with a month's interval between them. During these days, all children under 5 years received one dose of TOPV, irrespective of their prior immunization status. Even other antigens for the extended programme of immunization (EPI) were offered on those days.

Extended immunization coverage was supplemented by epidemiological surveillance to report on the presence or absence of cases of acute flaccid paralysis. Following identification of cases of acute flaccid paralysis, house-to-house immunization with TOPV was undertaken in all areas where wild virus is in circulation. The so-called 'mopping-up immunization' was also targeted to regions with low TOPV coverage, and was targeted, during house to operations, at all children younger than 5 years irrespective of their immunization status.

The efficacy of the strategy has been evident during 1990, when only 15 cases of paralytic poliomyelitis were recorded in that area as against an estimated 116 000 cases that occurred globally. A network of eight laboratories for poliovirus isolation provided the vital support for isolation and typing of wild poliovirus strains from stool samples in suspected cases and contacts.

There would be additional problems in implementing a policy along the Latin American pattern in different regions like Giza, Najran and Al Gassim in Saudi Arabia, where the population sites are sparsely located along villages, farms and water resources, and a significant proportion of the population may be composed of Bedouins who lead a nomadic lifestyle. A policy decision including a Royal Decree for two national days for extended immunization coverage in Saudi Arabia, would be very likely to help Saudis in the eradication of poliomyelitis well before the international target of the year 2000. The existing laboratory infrastructure in Saudi Arabia, with a slight addition of personnel, should be in a position to undertake the necessary laboratory investigations for isolation, typing, and potency assays on poliovaccines in field use in Saudi Arabia itself.

References


Sir,

The coverage of the third oral trivalent oral vaccine (TOPV) dose in Saudi Arabia is 92% (MOH Report for vaccination coverage 1991) so the problem in Saudi Arabia is a failure in vaccine 'take' or to put it in another way it is a problem of vaccine failure rather than a failure to vaccinate.
However, most of the points in the letter from Dr Arya are valid regarding the comprehensive strategy for poliomyelitis eradication which already exists in Saudi Arabia. Also, 'immunization days' which include re-immunizing individuals already previously immunized could help in overcoming the problem of a low seroresponse to the previous doses of TOPV. Regarding the national study of polio vaccine failure, we are in the analysis stage and this study will show the pattern of seroresponse to TOPV in different regions in Saudi Arabia in relation to certain variables. It will also show the effect of using combined injectable and oral polio vaccine in Saudi children. This joint work of the medical research department, the infectious diseases department, the primary health care department and Sulaimania children's hospital will help the Ministry of Health in adopting a research-linked policy towards poliomyelitis eradication.

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How to Recognize an Unwilling Kidney Donor

Sir,

It is the basis of medicine that the patient voluntarily seeks the help of the physician and the physician voluntarily accepts the responsibility for caring for the patient. The word 'donor' means 'giver' and the concept of voluntary donation has been central to all living donations.

I read with interest the article by Al-Khadar and Al-Sulaiman, How to Recognize an Unwilling Kidney Donor (Saudi Med J 1992; 13: 1–3) which included several important points about religious, cultural and social attitudes with regards to organ donation.

The authors have restricted their attention to detect the reluctant donors by focusing on looking for social, financial and family pressures and have not included in their interview questions to assess general attitude and religious belief—personality factors which are known to shape action and behaviour. The donor may appear hesitant because of his/her inabilitys to cope with a stressful life event and therefore act out in an aggressive way to allay anxiety. It is a matter of everyday observation

that patients about to undergo surgery are anxious. Janis (1958) reported that patients who were least anxious before surgery were likely to be more angry afterwards.

Yes, Islam permits both cadaveric and living related donation. However, Halil Bilgel et al. (1991) examined public attitudes towards organ donation in a Turkish community; interestingly they found reasons for refusal as follows: fear that the body would be cut 43.8%, religious beliefs 26.2%, no reason 23.1%, need the body and organs for second life 6.9%. Although the study mainly focused on donation after death, it does highlight the complexity surrounding donation in general. In the study males were more positive with regard to donation than females, also younger subjects were more willing than older ones, this was found to be mainly related to educational level. Still one of the misconceptions is concerned about the wholeness of the body at the time of resurrection although in the holy Koran Allah demonstrates his power to bring back life after death: 'Hath not man seen that we have created him from a drop of seed? Yet Lo! he is an open opponent. He hath coined for us a similitude, and hath forgotten the fact of his creation, saying: Who will revive these bones when they have rotted away? Say: He will revive them who produced them at the first, for He is the Knower of every creation.'

In conclusion, I found the 'prototypes' incompletely described and as it is a delicate medical and ethical situation where human factors play a crucial role, the prototypes need further research. Perhaps the liaison psychiatrist in the renal unit would help in designing an interview tool which measures the willingness of donors with some precision and offer counselling to donors before and after the surgery.

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References

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