

at 4 mg/dl (Normal = 15-35). With danazol 200-300 mg daily, his episodes of angioedema decreased. A few years later, when he developed laryngeal oedema, his condition was not recognised resulting in delay in definitive therapy. Fortunately, he recovered with an emergency tracheostomy. He later had another episode of laryngeal oedema which was arrested with fresh frozen plasma and tranexamic acid 1 gm qid.

The younger brother presented at 20 years old with progressive swelling of his right upper limb over 1 day associated with laryngeal oedema. A diagnosis of hereditary angioedema was made as he had a family history. He recovered within hours of administration of fresh frozen plasma and tranexamic acid. Danazol 200 mg bd was commenced as prophylaxis.

Their father, aged 52 years, also had spontaneous angioedema from the 2nd to 4th decade of life. Both brothers have remained well on follow up with danazol.

C1 esterase inhibitor (C1 INH) deficiency, the basic defect in the autosomal dominant HAE, results in the autoactivation of the complement cascade leading to low levels of C4 and C2 during an acute episode<sup>1,2</sup>. The C3 level remains normal. This autoactivation activates a kinin-like vasoactive mediator which causes oedema.

HAE causes oedema in three sites, cutaneous, intra-abdomen and larynx. Laryngeal oedema is life-threatening<sup>1,2</sup>. The oedema is painful and develops within hours, without urticaria or pruritus. Emotional and physical stress can trigger an attack of angioedema.

Although it may spontaneously resolve over days, acute airway obstruction requires the prompt administration of fresh frozen plasma and tranexamic acid. Tranexamic acid prevents the activation of plasmin which is needed for the activation of the mediator. Fresh frozen plasma will replace the deficient C1 INH. Attenuated androgens<sup>3</sup>, i.e. danazol and stanozolol, can increase the synthesis of normal functioning C1 INH. It is used as prophylaxis for patients with previous life-threatening complications. With prophylaxis, both brothers had decrease frequency of attacks.

It is important for physicians to be aware of HAE as

it differs from allergic forms of angioedema and the use of fresh frozen plasma, tranexamic acid and danazol.

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## How Parents in a Rural Area of Pekan District, Pahang Perceive Immunisation

Sir,

The Chini land scheme with an area of 21,363 hectares and a population of 23,160 is situated in the interior of Pekan District, Pahang. The population is almost homogeneously Malay (93.4%), with pockets of aborigines (6.5%). Indians and Chinese constitute less than 0.5% respectively. There were about 150 followers of a religious group. The health infrastructure of the land scheme consists of a health centre and 5 midwife clinics. The latter consist of two settler homes and a temporary village clinic. Subsidiary clinics are also provided on a regular basis by a team from the health centre to some selected isolated areas in the scheme. All these facilities carry out the immunisation programme. The health centre is situated about 75 km away from the Pekan District Hospital. The average distance of a house to the nearest clinic is about 9 km.

In view of the difficulties faced by health staff in getting children immunised, persistent refusal to the programme by a religious group, and with the overall immunisation coverage below the target set (i.e. < 90%) for universal child immunisation by the year 1990, a dialogue session between health staff and the community was held in April 1991 in order to ascertain their knowledge, attitudes and practices regarding immunisation, and also to identify problems faced by them in getting their children immunised and/or fully immunised.

There were about 60 people who attended the session. The reasons and excuses given by parents who are mostly followers from the religious group for not getting their children immunised were that there was no clear and strong evidence on the cleanliness and religiously permissible ("halal") nature of the vaccines. They also believed that they must accept anything whatever given by God as this was very important to test their patience. Therefore it was against the nature to receive immunisation. Tetanus toxoid given to pregnant mothers was believed to cause fetal abnormalities such as cleft lip and palate. Other reasons mentioned were transport problems, distance to health facilities, financial cost, too busy, problems of leaving other young children unattended, children are always sick (and sick children cannot receive immunisation), serious complications following immunisation, and that their children have developed measles (therefore no need to receive measles vaccination). Among reasons given by parents for incomplete immunisation were lack of knowledge of age of immunisation, lack of understanding of immunisation card, not sure of appointment dates, children are always sick, children will develop fever after immunisation, no need to complete immunisation, not aware of immunisation schedule (i.e do not understand the guidelines given in the "yellow book") and always assume that immunisation has been completed.

From the dialogue session, we found that most of the reasons given by parents are common in other studies<sup>1,2,3</sup>. The reasons raised by followers of a religious group namely, questionable vaccine cleanliness and religiously permissible, against the nature given by God, and fetal abnormality associated with vaccination need serious attention by all nursing staff and health authorities. It is clearly stated in a document produced by the Maternal and Child Health (MCH) unit, Ministry of Health,

(MOH) that all vaccines currently used are clean and religiously permissible to be given to Muslims. All health staff particularly nursing staff and communities must be made aware of this regulation, "fatwa". There has been no report on the association of tetanus toxoid vaccine and fetal abnormalities as claimed by many followers of the religious group.

Many parents did not know at what age children should begin to be immunised. Some believed that infants were too small and delicate to be immunised. Some were not aware that if they failed to take their children for immunisation on the date of appointment, it would be possible to come back on a later date. Few others were worried that they would be reprimanded or attended to rudely by health staff. Majority of the parents voiced a number of practical difficulties faced in getting their children immunised or completely immunised such as distance to health facilities, transport and financial problems, busy schedule and problems of leaving other young children unattended.

Many parents failed to take their children for immunisation if they were suffering from a slight illness because they learnt from health staff that nurses would not immunise children with low grade fever, and parents and children would have to return at a later date. As a result, parents began to take upon themselves the decision as to whether the child was well enough to be immunised in order to avoid an unnecessary visit. In order to avoid this miscommunication, all health staff must be made aware of the availability of guidelines on indications and contraindications for immunisation which is produced by MOH.

Under the new strategies, in order to increase immunisation coverage, the Ministry has introduced an immunisation card which is called *Panduan Immunisasi Anda*, or popularly known among the nursing staff and parents as "yellow book". This card should be given to parents of all newborns as guidance on immunisation schedules. Unfortunately, many parents claimed that they did not know the purpose of the book and that nursing staff had not explained it to them. In some cases parents did not know whether their children had received the necessary doses of vaccines. If they did not know which vaccines their children had received, nor how many doses, they could not know when their children had

to be taken for immunisation. Neither would they know how many doses were required. In addition to all these, it was found that very few parents understood the concept of immunisation as to how vaccines work, as they had received absolutely no education on the subject.

The dialogue highlighted some important aspects of how parents perceive immunisation, and what problems are involved in getting their children immunised in particular for a religious group, a rural community and aborigines. In order to achieve higher coverage and our objective of universal child immunisation at the local or district levels, we need to recognise the need for special immunisation efforts aimed at high-risk areas and groups such as children in the poor rural environment, population distant from health facilities, aborigines, and resistant religious groups. Health education must further be intensified particularly for the above groups. It is also important that in designing health education programmes, we must take into account the cultural, social and educational background of the communities.

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## Leech, Wire and Urethra

Sir,

Urethral catheterisation is one of the most commonly performed medical procedures.

This is usually done by medical personnel although many patients with neuropathic bladders at the Department of Urology, Hospital Kuala Lumpur are taught to do clean intermittent self catheterisation. Foreign bodies accidentally left in the urethra are not uncommon and a few cases are seen each year at the same Department. Such foreign bodies include tubes, wires and fishing lines although spaghetti had been reported<sup>1</sup>. These are usually the consequence of urethral masturbation.

A 28-year-old Kadazan male presented to Tawau Hospital with bleeding per urethra in June 1993. On examination an insulated wire was found extruding from his urethra. He reported going into a river the previous day to catch fish and a leech somehow got into his urethra. He removed the leech with an insulated wire. However, he could not pull out the wire and had to seek medical care. Plain radiograph of the pelvis (Fig. 1) revealed a wire knotted probably in the posterior urethra.

Under general anaesthesia the bladder was opened through a lower midline incision. It revealed cloudy blood-stained urine and a coiled insulated wire. The wire could not be pulled up nor down.

When the internal urethral meatus was retracted, a knot was visible. The knot was picked up with a pair of artery forceps and delivered into the bladder. The bleeding was from an area of urethral mucosal tear.