



reason for the high disease burden is that the vaccine has not yet been adopted and implemented by all countries, especially developing countries.

Several studies² have shown that introducing Hib vaccines in developing countries can result in a reduction of invasive Hib disease rates by over 80%.

The Hib vaccine has undergone several developments over the years. Initially an Hib polysaccharide (PRP) vaccine was developed. However, the immunological response to this vaccine was age dependent (as with other polysaccharide vaccines) with a poor response among those aged less than 2 years. Further development was undertaken; the Hib polysaccharide was conjugated to a carrier protein and this process then gave an effective vaccine that could be administered to the under 2-year age group. This has allowed many countries to include Hib vaccine in their national Expanded Program on Immunization (EPI). Despite this improvement, Hib vaccines are not affordable to many countries that need them most.

In order to minimise the cost of production, a few studies³ have looked at the immunogenicity of reduced doses of Hib antigen in the vaccine. While these studies may differ with regard to which protein the Hib is conjugated to (tetanus toxoid protein (PRP-T) or mutant diphtheria toxin CRM197 (HbOC)), there is growing evidence that reduced amount of antigen in the vaccine, e.g. 2.5 µg or 5 µg, is as protective as the conventional 10 µg dose.⁴ With such evidence coming through it is clear that the future of Hib vaccines will lie with the reduced Hib antigen.

Another development likely to ease the burden of programme managers is the shift from freeze-dried Hib vaccine (which has to be reconstituted before administration) to fully liquid Hib vaccine. As the world moves closer to liquid combination vaccines (mixing even up to 5 components, e.g. D, T, P, HepB, and Hib), the administration of the Hib vaccine should with time be even more cost-effective for immunisation programmes in many countries.

Morena Makhoana

Medical Affairs: The Biovac Institute
PO Box 14374
Wadeville
1422
morena@biovac.co.za

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Retention of a vaginal ring pessary in a postmenopausal patient

To the Editor: There is probably still a place, albeit small, for the use of a vaginal ring pessary. The ring pessary is usually used in elderly patients with symptomatic genital prolapse, especially where the patient is medically unfit for surgery or does not want an operation. Usually the ring pessary is not associated with significant complications. This case report demonstrates one possible complication.

A 75-year-old woman, G8P8, had had all her babies by the natural route. She first visited the practice in December 1999, requesting that the ring pessary that had been inserted some years before be checked. On examination she was found to have significant genital prolapse; the ring was still in position and was removed with ease. A significant degree of atrophy was present. The cervix could not be identified but a small postmenopausal uterus was present. Because she was a diabetic, hypertensive, cardiac patient, and was comfortable with the ring, surgery was not offered. The ring was reinserted and she was advised to use vaginal oestrogen cream on a regular basis, and asked to report every 6 months. The smear revealed atrophic cytology, no malignancy.

The patient was followed up for 5 years, at 6-monthly intervals. She then stayed away for 18 months; when she was seen after this interval, the ring was found stuck in the vagina. It could not be removed. The top part of the ring was covered over by a bridge of epithelium extending between the anterior and posterior vaginal fornices, thus fixing the ring in the vagina. The patient was reluctant to have it removed surgically. Also, the ring had served her well for many years. The ring was therefore manoeuvred back into its usual position. She was again advised to use vaginal oestrogen cream on a regular basis. She was discharged and is being followed up.

Vaginal entrapment of foreign bodies has been reported in this *Journal* several times.¹⁻³ The foreign bodies included among others a salt cellar,¹ the plastic cap of a spray canister² and an engagement ring,³ with a large diamond. The present case again demonstrates the apparent natural phenomenon of vaginal 'encapsulation', 'burial' or engulfment of a foreign body if left in the vagina for long enough. In this case the degree of genital atrophy must have played a role in the pathology.

W B Stephan J du T Zaijman

P O Box 156
Middelburg
5900
jzaijman@lantic.net

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