Vaccination against certain types of human papillomavirus (HPV) gives strong and sustained protection against genital warts and pre-cancerous growths of the cervix, according to a new study published in the British Medical Journal today.

An international study found that the quadrivalent HPV vaccine is helpful in preventing warts and low grade lesions related to HPV (types 6, 11, 16 and 18).

HPVs are responsible for around 500,000 cases of cervical cancer a year globally and 10 million further cases of high grade cervical intraepithelial neoplasia, which are immediate precursors to malignant cancerous growths.

In addition, it is estimated that 30 million women and men acquire anogenital warts (known as condyloma acuminata) or low-grade cervical growths each year.

The vaccine for HPV types 6, 11, 16 and 18 has the potential to prevent about 70% of cervical cancers and 90% of genital warts, but what contribution the vaccines make to low grade growths is still uncertain.

So an international group of investigators set out to find how useful the vaccines were in preventing low grade disease.
They studied results from 17,622 women aged 16-26 enrolled into two studies between December 2001 and May 2003. The women were enrolled from primary care centres and university or hospital associated health centres in 24 countries and territories around the world.

The women were split at random into two groups - one group was given three doses of HPV vaccine (for types 6, 11, 16 and 18) at day 1, month 2, and month 6 of the study, while the other women were given a placebo.

Results showed that amongst previously unexposed women who had received the vaccine, it was highly effective (96-100%) for preventing low grade lesions attributable to HPV types 6, 11, 16 and 18 for up to four years.

It also had considerable effectiveness against any lesion (regardless of HPV type), with a reduction of 30% of cervical low-grade growths, 48% of vulvar and 75% of vaginal low-grade growths. Genital warts were reduced by 83%.

The authors say the prolonged effectiveness of the vaccine in preventing low grade lesions is important and conclude: "These lesions occur shortly after infection and a reduction in these lesions will be the earliest clinically noticeable health gain to be realised by HPV vaccination.

"Low-grade cervical and vulvovaginal lesions are important from a public health perspective, as the diagnosis, follow-up, and treatment of these common lesions are associated with substantial patient anxiety, morbidity, and healthcare costs."

Provided by British Medical Journal