

JOURNAL REVIEW

Effect of the human papillomavirus (HPV) quadrivalent vaccine in a subgroup of women with cervical and vulvar disease: retrospective pooled analysis of trial data

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A national prophylactic human papillomavirus (HPV) vaccination programme targeting girls aged 12–13 years has been running in England since 2008. In older sexually active females requesting vaccination, a frequent question is whether it is worthwhile to vaccinate women who have already been infected with HPV, especially those who have undergone treatment.

This study investigates the incidence of subsequent HPV-related genital disease in women treated for cervical disease or diagnosed with vulval or vaginal disease after vaccination. In the conclusion the authors state that the study confirms that:

(1) vaccination did not reduce progression to disease in women who were infected with HPV at the time of vaccination but (2) women who were treated for disease were still at risk for developing subsequent disease, and vaccination offered substantial benefit.

The latter statement reflects the primary objective of the study and the data show that in the vaccinated women there was a 46.2% reduction in any HPV-related disease after cervical treatment and a 35.2% reduction after diagnosis of vulval or vaginal disease. This is welcome news and would appear to confirm that a current HPV infection does not negate the future benefit of vaccination.

However, there are no data in the paper to corroborate the initial statement, merely a sentence that “It is important to note that most of the ‘first’ disease detected in both vaccine and placebo recipients was a result of [these] infections that were present at Day 1, and not due to vaccine failure”. A table showing the concordance of HPV types at Day 1 of the trial in relation to the initial disease histology would have helped to confirm the statement. It would also have been interesting to see the concordance with the subsequent disease, especially for the 82 cases of high-grade cervical disease.

Despite the large number of women recruited in the initial trials there are limitations to the study. It is a retrospective pooled analysis of two trials looking at a small subset of women who went on to have HPV-related genital disease. Management of any vulval/vaginal disease in the 12 000 women in FUTURE II was left to local standards of care and assumptions regarding time to treatment were derived from FUTURE I where the mean time from diagnosis to treatment was 28 days, but with 18% of women not treated by 60 days.

As a result the use of 60 days post-diagnosis of vulval/vaginal disease (mean 32 days post-treatment and 18% not treated) or treatment of cervical disease (with no data on the completeness of excision of CIN) to define ‘new’ disease will invariably result in cases of residual or co-existing disease. Thus although the findings are encouraging, readers need to be aware of the limitations of this study.

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