

Abstract:

POTENTIAL CLINICAL IMPACT OF THE INTRODUCTION OF THE NONVALENT HUMAN PAPILLOMAVIRUS VACCINATION: AN ANALYSIS OF 13,665 PATIENTS OVER A 18-YEAR STUDY PERIOD

Aims

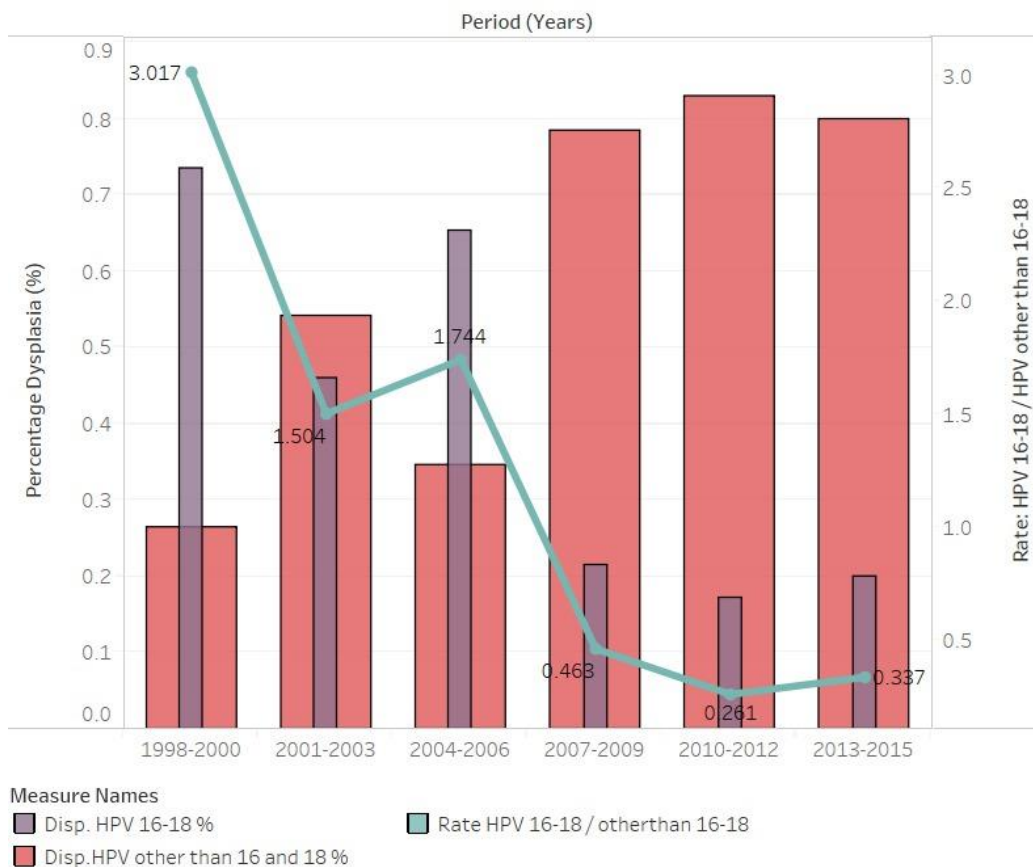
To test the theoretical utility of the incorporation of quadrivalent and nonavalent vaccination against HPV into a clinical setting.

Method

Data of consecutive patients undergoing sampling for HPV DNA testing from 1998 to 2015 were retrospectively searched in order to identify changes in HPV prevalence during three study periods (T1, 1998-2003; T2, 2004-2009; and T3, 2010- 2015).

Results

We enrolled 13,665 patients: 1361, 5130, 7174 patients, in T1, T2 and T3, respectively. Potentially, the quadrivalent vaccine protected against HPV infection in 71.5%, 46.5% and 26.5% of patients tested in T1, T2 and T3, respectively (p-for-trend<.001). While, the nonavalent vaccine protected against HPV infection in 92.5%, 72.3% and 58.1% of patients tested in T1, T2 and T3, respectively (p-for-trend<.001). The proportion of patients with genital dysplasia grade2+, not related to HPV types covered by quadrivalent vaccine (13% in T1, 21% in T2 and 34% in T3) and nonavalent vaccine (3% in T1, 12% in T2 and 19% in T3) increased over the time (p-for-trend<.001). For all study period the nonavalent vaccine was superior that quadrivalent vaccine in protect against HPV infection (p<.001). The figure displays the prevalence of dysplasia related to HPV 16-18 and to high-risk HPV infection other than 16-18.



Conclusion

Nonavalent vaccine would improve protection against HPV infections and HPV-related genital dysplasia²⁺. Moreover, we can speculate that cross protection of nonavalent vaccine will be related to a highest coverage against other HPV types

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