The Royal Wolverhampton Hospitals NHS
NHS Trust

Cervical cytological abnormalities in the era of HAART

N. Hettiarachchi, A. Tariq
The Fowler Centre for Sexual Health – New Cross Hospital, Wolverhampton

Background

- There is an increased incidence of cytological abnormalities in HIV positive women compared with the general population[1]
- This may be due to poor or no immune activity against human papillomavirus (HPV) as well as a direct action by HIV itself[1,2,3]
- The effect of HAART on the evolution of cervical cytological changes in HIV-positive women is not clear [3,4]
- BHIVA guidelines 2008 recommend annual cervical smears for HIV positive women and the results to be documented in the case notes

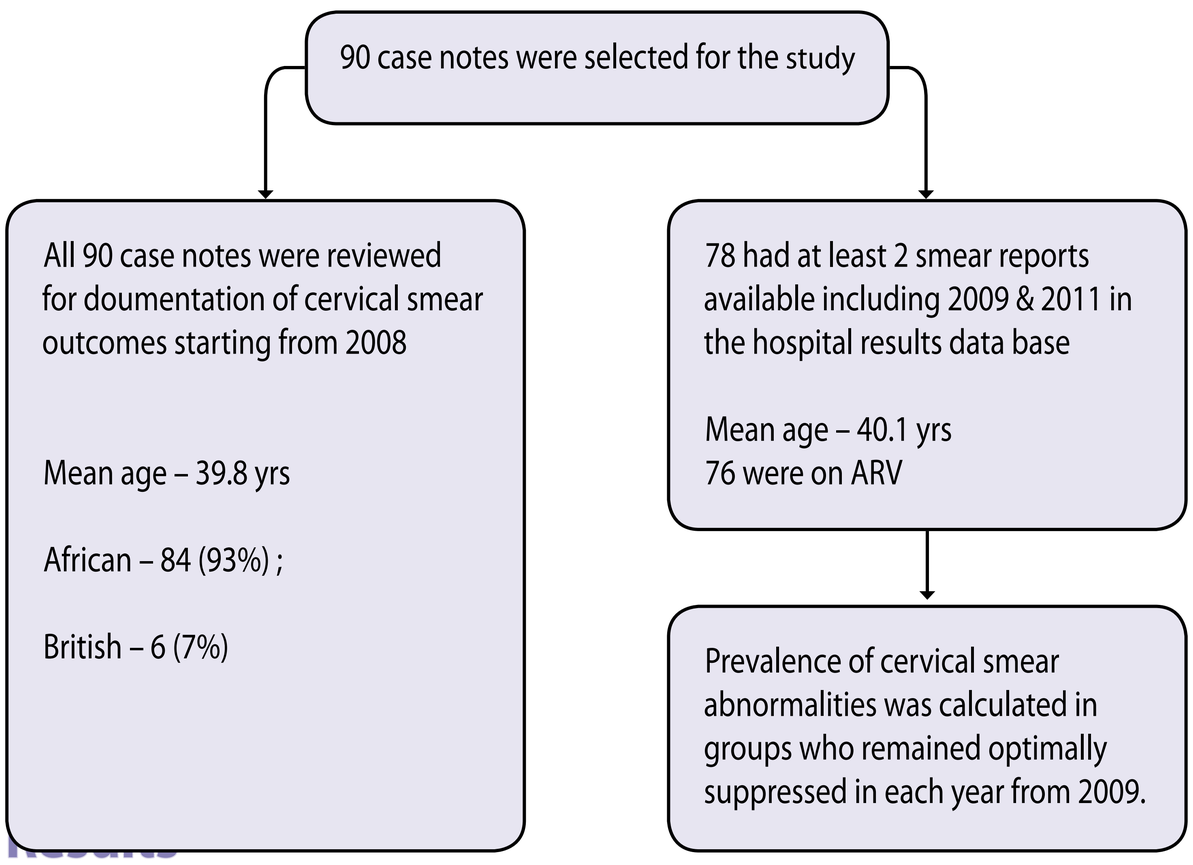
Aim of the survey

- To ascertain the compliance with BHIVA recommendations on cervical smear screening since the implementation of BHIVA 2008 guidelines at our centre.
- To determine the prevalence of cervical smear abnormalities in a sub group of patients within our cohort.

Methods

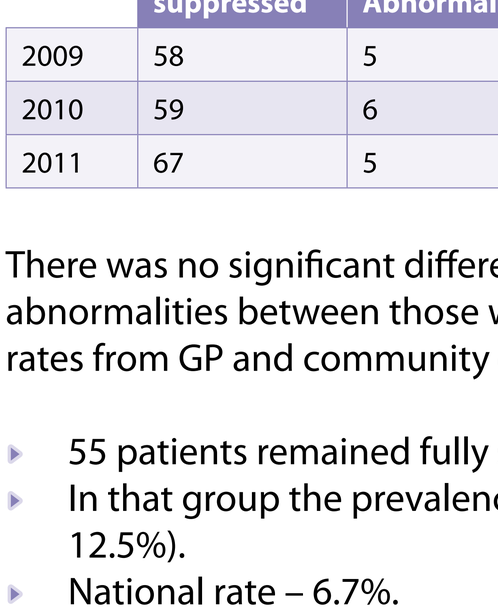
- The case notes of all females who had been registered before 2008 were used to analyse the documentation of cervical smear outcomes.
- The cytology reports of all females who had been registered before 2009 were also reviewed.
- Patients who did not attend for more than a year or disengaged with the service were excluded from the study.
- The prevalence of abnormal cervical smears in each year was calculated in a subgroup of patients who remained fully suppressed in the year of test and had at least two cytology reports including 2009 and 2011.
- These were compared with the rates of GP and community clinics in England to detect significant difference.
- For the observed rates of abnormal smears, 95% binomial confidence intervals were produced to allow comparisons with the respective England rates.

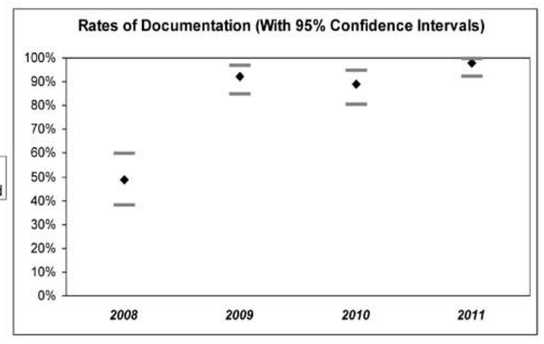
Fig. 1 - Study design



Results

Fig. 2 & 3 - Rates of documentations in accordance with BHIVA recommendations.





The rates of documentation have significantly improved after the implementation of the BHIVA cervical smear guidelines in 2008. (2008 vs 2011 P = 0.004)

Table 1 – Prevalence of cytological abnormalities in optimally suppressed patients in the year of smear test.

	VL Fully suppressed	Smear Abnormal	Abnormal Rate (%) (95% confidence interval)	National Rate (%)
2009	58	5	8.62 (1.4 – 15.84)	6.1%
2010	59	6	10.1 (2.41 –17.79)	7.0%
2011	67	5	7.4 (1.13 – 13.67)	6.7%

There was no significant difference in the prevalence of cytological abnormalities between those who were optimally suppressed and the rates from GP and community clinics in England.

- 55 patients remained fully suppressed in all 3 years.
- In that group the prevalence in 2011 was 3.63 %(95% CI; 0.4% – 12.5%).
- National rate – 6.7%.

Conclusion

- The survey showed that documentation on cervical smears improved after implementation of BHIVA recommendations.
- There was no significant difference in the prevalence of cytological abnormalities between those who were optimally suppressed and the rates from GP and community clinics in England.
- The survey highlights the need for more data to determine the impact of HAART on cervical cytology and to inform screening policy.

Reference -

1. British HIV Association, BASHH and FSRH guidelines for the management of the sexual and reproductive health of people living with HIV infection 2008
2. O. E. O. Hotonu, J. Hussey, M. S. T. Basta, V. Wadehra, P. Cross and M. L. Schmid. An audit of cervical cytology in HIV-positive women. Cytopathology 2010 ; 21:116 - 119
3. Paramsothy et al. The Effect of Highly Active Antiretroviral Therapy on Human Papillomavirus Clearance and Cervical Cytology. Obstet Gynecol 2009;113:26 - 31
4. Kojic et al. Human Papillomavirus Infection and CytologicAbnormalities of the Anus and Cervix Among HIVInfected Women in the Study to Understand the Natural History of HIV/AIDS in the Era of Effective Therapy (The SUN Study). Sexually Transmitted Diseases 2011;38 :253 - 259

Designed and produced by The Department of Medical Illustration and Graphic Design, New Cross Hospital, Wolverhampton, WV10 0QP - Tel: 01902695377
mi 773011