

A new paradigm for follow-up of men with Anal Squamous Cell Cancer (ASCC)

Langton-Lockton J¹, Hesse K², Carr A², Field AS², Hillman RJ^{1,2}

¹ Western Sydney Sexual Health Centre, ² St Vincent's Hospital, Sydney

Background:

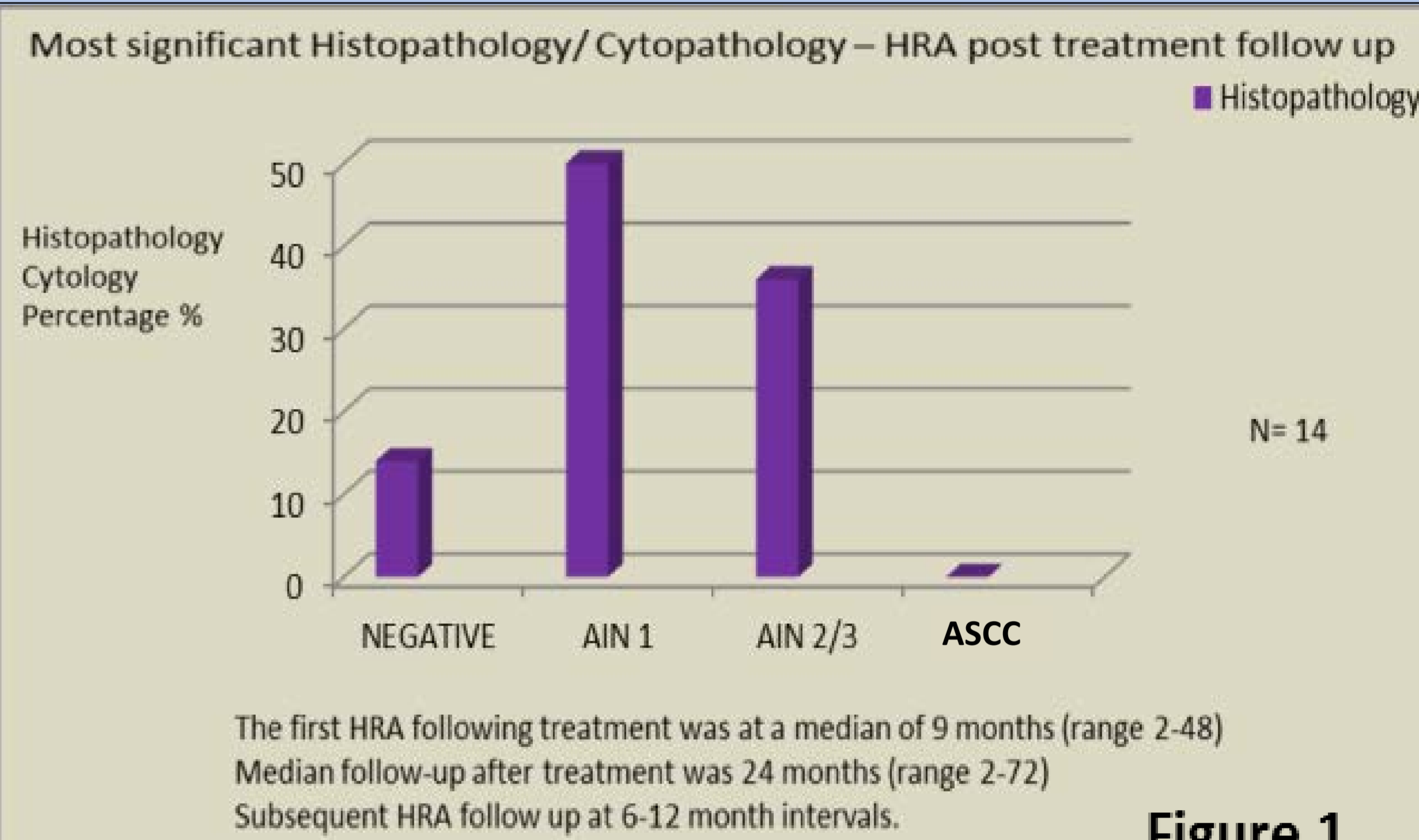
- ASCC is the commonest non-AIDS defining cancer in HIV-positive men who have sex with men, with incidence rates of >100 cases/100,000.
- Five-year survival rates (65%) are closely related to tumour size at time of diagnosis.
- Current follow-up protocols for local recurrence of ASCC are naked eye inspection and digital anorectal examination.
- Local recurrence is common (33% of cases) following treatment.
- Anal cytology and High Resolution Anoscopy (HRA) have been proposed as additional methods, as they have the ability to detect microscopic evidence of HPV-related lesions.
- We report findings during management of ASCC from a single hospital.

Results:

- All 14 cases (13 intra-anal, 1 peri-anal) were male
- Mean age was 56 years (range 44 to 68) at diagnosis
- 93% were HIV positive.
- Typical ASCC treatment was chemo-radiotherapy (86%).
- Two patients with recently diagnosed ASCC had follow up with anal cytology/HRA but had not yet started treatment for their ASCC at time of analysis .
- The first HRA follow up post ASCC treatment was at a median of 9 months (range 2-48)
- The median follow up was 24 months (range 2-72)
- Subsequent HRA follow up at 6-12 month intervals.
- The most significant cytology/histology findings at HRA follow-up are shown in **Figure 1**
 - High-grade squamous intra-epithelial lesions (HSIL - 36%)
 - Low grade squamous intra-epithelial lesions (LSIL - 50%)
- 14% had no evidence of AIN
- **None had cytological or histological evidence of local ASCC recurrence.**

Methods:

- Patients with ASCC who had at least one anal cytology test and/or HRA following diagnosis of ASCC between 2001 to 2015 were identified.
- The HRA procedure includes an intra-anal swab for intraepithelial cytology, together with directly visualized HRA-guided anal biopsies for histopathology.



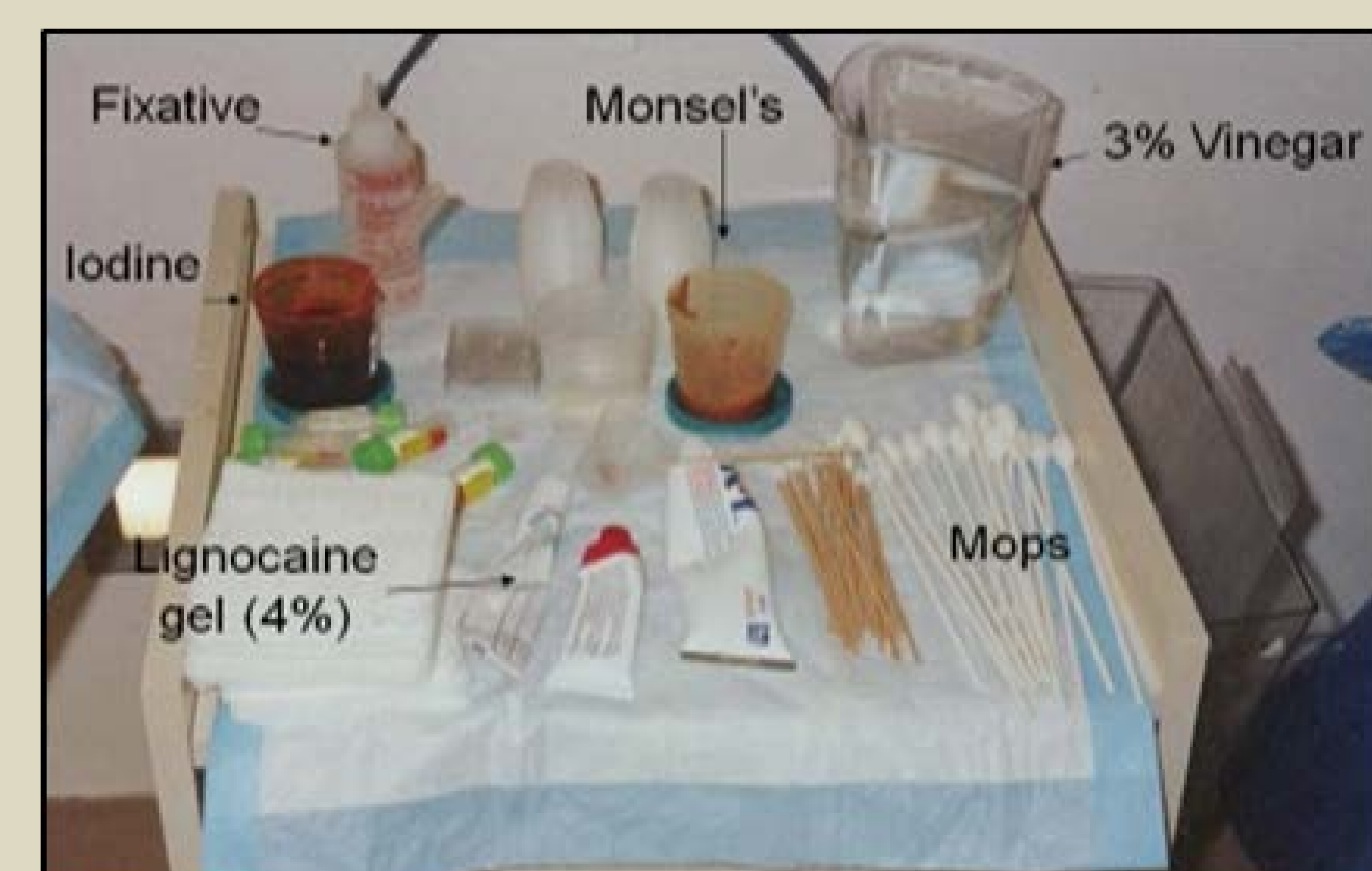
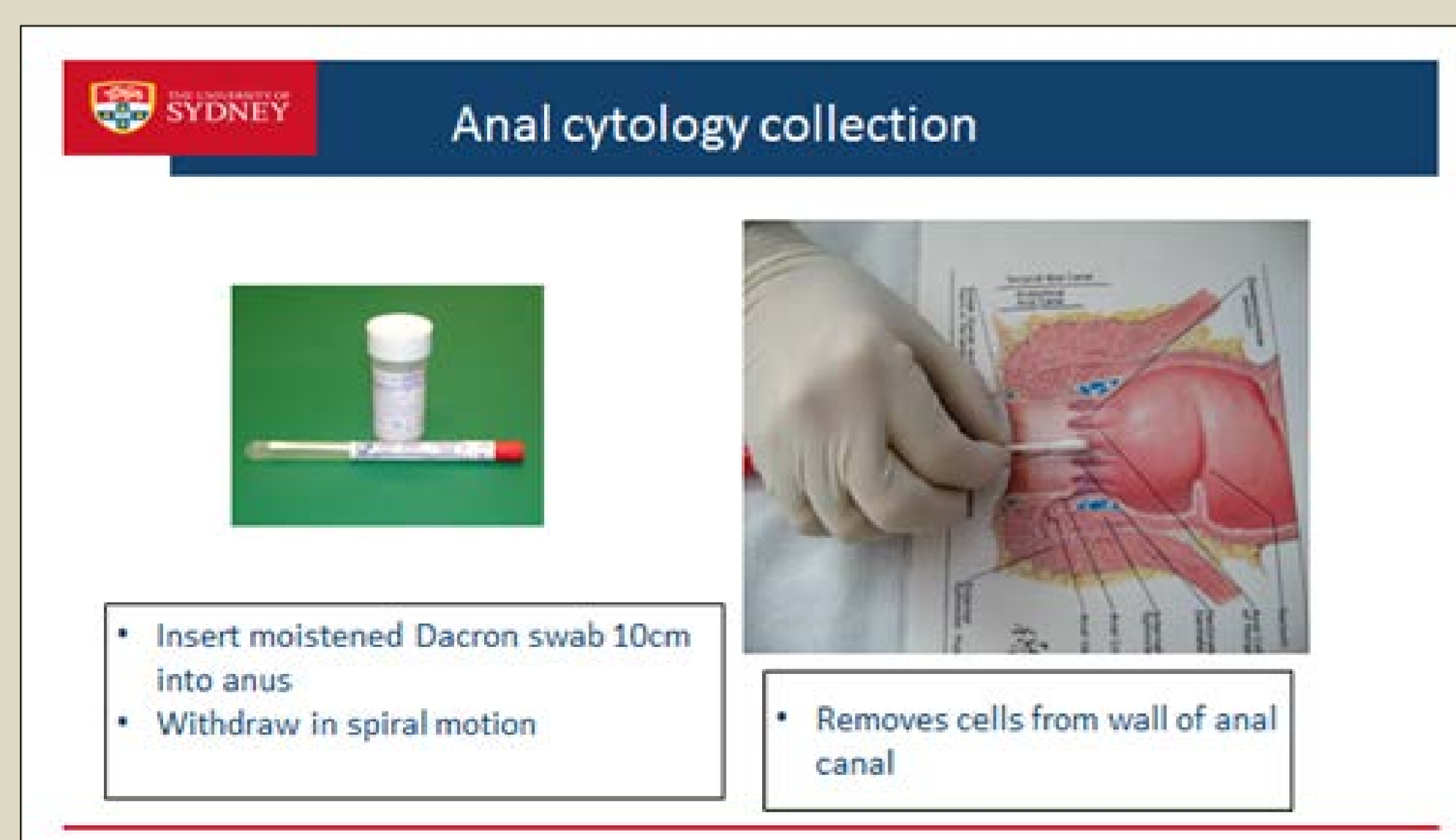
Follow up procedure:

- Digital rectal examination
- A Dacron intra anal swab is used to collect samples for cytology and human papilloma virus (HPV) genotyping (**Figure 3 / 4**)
- Insertion of a lubricated proctoscope and application of acetic acid and Lugol's iodine (**Figure 2**)
- Examination of the anal mucosa at magnification 10x to 40x using a colposcope.
- Possible areas of intraepithelial neoplasia are identified and HRA-guided anal biopsies are taken for histopathology
- Proctoscope is removed following haemostasis

Figure 2

Figure 3

Figure 4



Conclusion:

The use of anal cytology and HRA permit early identification of anal HPV-associated lesions, including HSIL during the management of people with ASCC. This has the potential to target those most at risk of ASCC recurrence. Further experience is needed to fully evaluate their role in long-term management.