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Treatment of anal intraepithelial neoplasia and prevention of anal carcinoma

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Background

- The anal cancer rates are much higher in HIV positive men and these have increased over time.^{1,2,3,4}
- Progression to anal cancer from high-grade anal intraepithelial neoplasia (AIN 2/3) has been noted in a number of small observational studies at a rate of 8.6% to 14.3% over 5 years.^{6,7,8,9}
- An opportunity to prevent anal cancer may exist through treatment of AIN 2/3 lesions.

Methods

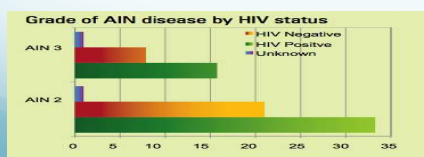
- Data on 91 cases of high grade AIN (2/3) was retrospectively reviewed .
- Inclusion:
Patients who had a minimum of 3 year follow-up after AIN 2/3 diagnosis and who underwent laser ablative treatment.

Results

Demographics

Cohort characteristics	No of Patients (%)
AIN 2	56 (61.5%)
AIN3	35 (38.5%)
HIV +	56 (61.5%)
HIV -	33 (36.2%)
Male	82 (90.1%)
MSM	80 (87.9%)
Nadir CD4 <200	37 (66%)
Mean age	36.6

- A total of 91 patients (35 AIN 3; 56 AIN 2) were identified. Fifty six (61.5%) were HIV positive.



- Median follow-up for the cohort was 69 months
- None of the patients in this cohort developed anal cancer
- Markov model based analyses suggest that treatment may have prevented lesion progression in a proportion of cases.
- One patient who did not meet the criteria of 3 years of follow-up and was thus excluded from the analysis went on to develop anal cancer.



Interpretation

- Although no large natural history studies exist, available data suggest that AIN 2/3 in some instances can progress to anal cancer
- Previously we established 36 months as an adequate period to assess outcome of treatment.¹⁰
- In our cohort of 91 patients treated with laser ablative therapy for high grade disease, no one developed anal cancer after a median follow up of 69 months.
- Based on the break-through cancer rates from published data, we would have expected between 8 and 13 patients to develop cancer in our cohort
- We now need prospective data on treatments employed to prevent anal cancer

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