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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. 5,6,7,8,9
- 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

<table>
<thead>
<tr>
<th>Demographics</th>
<th>No of Patients (%)</th>
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<tbody>
<tr>
<td>Cohort characteristics</td>
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<tr>
<td>AIN 3</td>
<td>35 (38.5%)</td>
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<tr>
<td>HIV +</td>
<td>56 (61.5%)</td>
</tr>
<tr>
<td>HIV -</td>
<td>33 (36.2%)</td>
</tr>
<tr>
<td>Male</td>
<td>82 (89.1%)</td>
</tr>
<tr>
<td>MSM</td>
<td>8 (7.7%)</td>
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<tr>
<td>Nadir CD4 &lt;200</td>
<td>37 (66%)</td>
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<tr>
<td>Mean age 36.6</td>
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- 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.

References

Thanks to

The patients at Homerton and Barts

Dr Mayura Nathan

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Kerstin Klein, Nicky Hicky, Damilola Awosika

N Singh & M Sheaff