**Introduction:**

- Recent reports\(^4,6\) describe some men treated with oral finasteride (F) 1 mg/day for androgenic alopecia (AGA) experiencing impotence and loss of libido persisting after discontinuation of F.
- The manufacturer's Full Prescribing Information for F describes erectile dysfunction and libido disorders continuing after treatment discontinuation, but indicates that from spontaneous reports alone, it is impossible to reliably estimate frequency of persistent sexual dysfunction or establish a causal relationship to drug exposure.
- We queried an archive for an electronic medical record (EMR) database at a large, urban academic medical center to identify healthy men who developed sexual dysfunction (SD) after taking F.

**Methods:**

We searched our EMR database (2.9 million individual records) for the interval January 2001 to September 2013, identifying:

- Healthy men\(^\ast\) \(< 42\) years old
- Exposure to F \(< 1.25\) mg/day
- No exposure to 5-alpha reductase inhibitors other than F \(< 1.25\) mg/day.
- No SD prior to F exposure
- No history of prostate cancer or prostate surgery
- No prior phosphodiesterase-5 inhibitor (PDE-5I) use
- N = 4,274

\(\ast\)No history of alcoholism, diabetes, obesity, hypertension, vascular disease, prostate disease, prostate surgery, prostate cancer, exposure to anti-androgen drugs, or exposure to diuretics

- We identified impotence and low libido using ICD-9 codes\(^\ast\)\(^\ast\), with confirmation by manual review of the EMR.
- We used a threshold of \(\leq 1.25\) mg for F dose, as tablet-splitting of the 5-mg dose was common.
- We identified PDE-5I use based on prescription records in the EMR.
- We defined new SD as new impotence, low libido, or PDE-5I use.
- We defined persistent SD as impotence or low libido lasting > 90 days after discontinuation of F.

**Results:**

Our cohort consisted of 4,274 healthy young men who were prescribed F \(\leq 1.25\) mg/day. The results are described in the following table:

<table>
<thead>
<tr>
<th>Outcome</th>
<th>N</th>
<th>% (of SD cohort)</th>
<th>% (of whole cohort)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impotence</td>
<td>147</td>
<td>54.4%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Low Libido</td>
<td>69</td>
<td>25.6%</td>
<td>1.6%</td>
</tr>
<tr>
<td>New PDE-5I</td>
<td>210</td>
<td>77.8%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Persistent SD</td>
<td>47</td>
<td>17.4%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Total SD</td>
<td>270</td>
<td>100.0%</td>
<td>6.3%</td>
</tr>
<tr>
<td>No SD</td>
<td>4004</td>
<td>93.7%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4274</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

In the 47 patients experiencing persistent SD:

- Median age at first exposure to F was \(31\) years.
- Median duration of SD following discontinuation of F was \(1,398\) days (IQR 396-2,424 days)
- Persistence > \(365\) days occurred in 36 of the 270 individuals (13.3%)
- The maximum persistence observed was 3,356 days.

**Conclusions:**

This report is the first to quantify the rate of persistent SD in healthy, young men exposed to finasteride \(< 1.25\) mg/day. Our findings indicate a need for increased awareness among patients and practitioners of the risk of persistent sexual dysfunction associated with use of finasteride for androgenic alopecia.

**References**