Tempro – A New Transurethral Bipolar Radiofrequency Device for BPH Thermal Treatment, One Year Follow-up

Dr. Christian Beck
Institute for Thermotherapy, Dortmund, Germany

Introduction
Several minimally invasive systems are being offered to the urologist to treat BPH. They include Thermal therapy using Microwave, Monopolar Radio Frequency (T.U.N.A.) and recently a Bipolar Radio Frequency (T.U.R.F) system called TEMPRO.
The purpose of the study was to assess the safety and efficacy of the new Tempro device. In the past I presented my initial experience, with a 3 month follow-up elsewhere (WCE).

Methods
The Tempro uses a special 16Fr Foley applicator catheter with 6 ring electrodes. The system computer controls the bipolar RF energy delivery to the prostate using feedback from 3 temperature sensors. Treatment protocols were 55º C, 1 hour and recently 60ºC/15 minutes without cooling.
Due to the use of Bipolar RF, the heat is concentrated in a small cylinder around the urethra, thereby not requiring a rectal probe.

Results
During the last 18 months, a total of 105 patients were treated with this new system. The inclusion criteria were as follows: patients with a high level of BPH symptoms, (IPSS score >20), moderate Qmax flow (range 6 to 14 ml/sec) and bad quality of life.
Out of the 105 patients, I am reporting the results of the first 30 patients, which have completed at least one-year follow-up.
The 3 previous parameters were tested at Baseline (BL), 1 month (1 M), 3 months (3M) and 1 year (1YR) or more with the following average and standard deviation results (in brackets).

| Parameter | BL | 1M | 3M | 1YR
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<tbody>
<tr>
<td>IPSS</td>
<td>22.2 (3.7)</td>
<td>20.2 (3.8)</td>
<td>18.5 (4.7)</td>
<td>16.2 (3.0)</td>
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<tr>
<td>Qmax</td>
<td>11.4 (2.8)</td>
<td>12.5 (2.6)</td>
<td>17.4 (3.3)</td>
<td>17.5 (2.5)</td>
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<tr>
<td>QoL</td>
<td>4.3 (0.6)</td>
<td>3.4 (1.1)</td>
<td>1.5 (0.7)</td>
<td>1.5 (0.5)</td>
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The treatment was well tolerated by all patients, and no treatment had to be discontinued due to pain. Analgesia used was a small dose of Tramadol drops.
The only side effect was a small percentage of Post Treatment catheterization for 2-4 days.

Conclusion
In my experience, the Tempro treatment seems to be safe and effective, and provides an important tool to treat BPH symptomatic patients. Optimal results were reached at 3 months and maintained after one year. These results are encouraging. Additional studies are required to establish the long-term effectiveness of this treatment.