**No-Repair** and **Open Surgical Treatment** should be considered more often in the Rx of some patients with *complex-anatomy AAA*

79y M

- "end-stage PAD": failed previous fem-fem and fem-pop bypasses.
- Heavily calcified nearly occluded bilateral iliac and femoral arteries, and more...
- Severe COPD
- Stable CAD
- Juxta-renal juxta-visceral AAA, gradually enlarging over the last 5 years, now up to 6.9cm

Became increasingly concerned about "time bomb" in his belly and the risk of rupture...

Kept asking about possible options...

advised to go for second opinion

Once in the hands of a vascular specialist:

It is (almost) always all about *how*...?

BUT seldom if ever on whether to repair an aneurysm in the face of a patient of a certain age and life expectancy (among other variables)
DEFINE "COMPLEX"
Cannot treat optimally with either
- Standard EVAR

Ch-EVAR:
- Bilateral renal chimney stents
- Proximal extension cuff to SMA

or
- Standard Open Repair
The aneurysm must be large enough to represent an immediate and significant threat to life.

\[
\text{AAA} = 4.9 \text{cm max}
\]

70y M Morbid obesity Serious CV risks

Guidelines for the treatment of abdominal aortic aneurysms

Average rupture risk per year:
- 1.0% in male pts with AAA 5.0-5.9cm
- 3.9% in females with AAA of same size (4x)
- 14.1% in males with AAA 6.0cm or larger
- 22.3% in females with AAA of that size

The risk of rupture in untreated aneurysms: The impact of size, gender, and expansion rate

Peter M. Brown, MD, David T. Zelt, MD, and Berit Schelde, PhD, Kingston, Ontario, Canada

Table I. Estimated annual rupture risk

<table>
<thead>
<tr>
<th>AAA diameter (cm)</th>
<th>Rupture risk (0.5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;4</td>
<td>0</td>
</tr>
<tr>
<td>4.5</td>
<td>0.5</td>
</tr>
<tr>
<td>5.0</td>
<td>1.0</td>
</tr>
<tr>
<td>5.1 - 5.9</td>
<td>3.05 (3.13%)</td>
</tr>
<tr>
<td>6.0</td>
<td>10.20</td>
</tr>
<tr>
<td>7.8</td>
<td>20.60</td>
</tr>
<tr>
<td>&gt;8</td>
<td>30.50</td>
</tr>
</tbody>
</table>

Table II. Rupture risk

<table>
<thead>
<tr>
<th>Low risk</th>
<th>Average risk</th>
<th>High risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of symptoms</td>
<td>&lt;4 cm</td>
<td>0</td>
</tr>
<tr>
<td>Hypertension/COPD</td>
<td>4.5 cm</td>
<td>0.5%</td>
</tr>
<tr>
<td>Family history</td>
<td>5.0 cm</td>
<td>1.0%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>5.1-5.9 cm</td>
<td>3.05% (3.13%)</td>
</tr>
<tr>
<td>Smoking</td>
<td>6.0 cm</td>
<td>10.20%</td>
</tr>
<tr>
<td>Elevated blood pressure</td>
<td>7.8 cm</td>
<td>20.60%</td>
</tr>
<tr>
<td>Discontinued smoking</td>
<td>&gt;8 cm</td>
<td>30.50%</td>
</tr>
</tbody>
</table>

For more information, please visit: [link to website]

"You say here you're eager to 'push the envelope.' Great! We'll place you in the mail room."
Today’s EVAR results are clearly better and more durable thanks to better technologies... Probably true, but...

GUIDING PRINCIPLES TO TAKE HOME:

- Always weigh risks of procedure versus natural history of the untreated AAA
- Elective repair of complex-anatomy AAA requiring complex EVAR or difficult OR should be reserved for 6cm+ aneurysms (in men)
GUIDING PRINCIPLES TO TAKE HOME:

- Always weigh risks of procedure versus natural history of the untreated AAA.
- Elective repair of complex-anatomy AAA requiring complex EVAR or difficult OR reserved for those aneurysms.
- Open Repair still has much to offer those complex-anatomy aneurysm patients who are good-risk candidates.
- Most truly inoperable patients should probably be observed and not subjected to elective aneurysm repair of any kind.