Should we screen for metabolic syndrome?

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Brussels Menopause Center

Belgian Menopause Society Symposium
June 2009
Causes of death in men and women

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Men (%)</th>
<th>Women (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>Stroke</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>Other CVD</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Cancer</td>
<td>21</td>
<td>17 (breast 3%)</td>
</tr>
<tr>
<td>Respiratory</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Injuries-Poisonning</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>

European cardiovascular disease statistics, 2008
Diabetes

✓ nearly 200 million people (5% of the adult population)
✓ the 4th or 5th leading cause of death
✓ by 2025, it is expected affecting 333 million people
✓ risk of CHD increased fourfold in women (2.5 in men)
✓ induced CHD risk similar to myocardial infarct
Metabolic syndrome

✓ a cluster of the most dangerous heart attack risk factors:
  diabetes and prediabetes, abdominal obesity, high cholesterol and high blood pressure.

✓ around 25 % of the world’s adult :
  • they are twice as likely to die from
  • three times as likely to have a heart attack or stroke
  • fivefold greater risk of developing type 2 diabetes.
Female Metabolic Syndrome

(Worldwide definition for use in clinical practice, IDF 2006)

- Central obesity

  (waist circumference ≥ 80 cm, for European women)
Female Metabolic Syndrome

+ any 2 of the following 4 factors:

- TG level: ≥ 150 mg/dL (1.7 mmol/L), or specific Ttt
- HDL cholesterol: < 50 mg/dL (1.29 mmol/L), or specific Ttt
- Systolic BP ≥ 130 or diastolic BP ≥ 85 mm Hg, or specific Ttt
- Fasting plasma glucose ≥ 100 mg/dL (5.6 mmol/L), or previously diagnosed type 2 diabetes
Postmenopausal transition

Are menopausal lipid changes independent of age effects?

- Total Cholesterol and LDL: accepted
- HDL and Triglycerides: inconsistent
- Lipoprotein (a): unclear
Postmenopausal transition

Measures of health status

- Obesity: impact on lipid profiles
- BMI: impact on E2 and FSH levels
- Smoking: early menopause, CHD risk
- Physical activity: impact on lipids and weight gain
Study of Women's Health Across the Nation

Adjusted mean of T-C, LDL-C, and TG, by menopausal status stratified on baseline weight tertile,
Study of Women's Health Across the Nation

Estimated relative odds of LDL (>=130 mg/dL) for peri- and postmenopausal compared with premenopausal women, full sample and stratified by baseline weight tertile,

Cardiovascular risk assessment in gynaecological practice: physician survey on current practice in Europe and USA

Santiago Palacios

June 1-2, 2007, Seville
Study design and sample composition

- **Online-survey:** to keep the tendency of social desired answering to a minimum and perceived respondent anonymity at a maximum
- **Sample:** office based gynaecologists, in UK GPs as well, in Spain and Italy office-based/ private hospital/ private gynaecological centre

**Final sample sizes:**

<table>
<thead>
<tr>
<th>Country</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>103</td>
</tr>
<tr>
<td>Germany</td>
<td>101</td>
</tr>
<tr>
<td>Italy*</td>
<td>77</td>
</tr>
<tr>
<td>Spain*</td>
<td>90</td>
</tr>
<tr>
<td>UK</td>
<td>101</td>
</tr>
<tr>
<td>USA</td>
<td>200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>672</strong></td>
</tr>
</tbody>
</table>
Q1: In your practice, please name the most common assessments you do in menopausal women. Please note down the assessments in the order of their relevance. Open question

- Mammography: 33%
- Patient history: 30%
- Bone Mineral Density (BMD): 27%
- PAP smear: 26%
- Blood pressure (BP): 20%
- Hormonal levels / profile: 17%
- Breast examination: 15%
- (Severity of) Menopausal: 15%
- Height and weight: 14%
- Lipid profile: 14%
- (Hot) flushes / flushing: 14%
- Blood analysis: 12%
- Emotional status / mood: 11%
- Examination (general): 11%
- Physical examination: 11%
- Cardiovascular risk / cardiac: 10%
- Ultrasound examination: 10%
- Vaginal dryness: 10%

Global
N=610
(including N=44 for It and N=61 for Sp)
Q4: In your current practice, do you assess cardiovascular risks in your menopausal patients?

<table>
<thead>
<tr>
<th>Country</th>
<th>N</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU Kev 5</td>
<td>472</td>
<td>86%</td>
<td>4%</td>
</tr>
<tr>
<td>USA</td>
<td>200</td>
<td>80%</td>
<td>10%</td>
</tr>
<tr>
<td>UK</td>
<td>101</td>
<td>84%</td>
<td>6%</td>
</tr>
<tr>
<td>D</td>
<td>101</td>
<td>86%</td>
<td>4%</td>
</tr>
<tr>
<td>It</td>
<td>77</td>
<td>97%</td>
<td>3%</td>
</tr>
<tr>
<td>Sp</td>
<td>90</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>F</td>
<td>103</td>
<td>88%</td>
<td>12%</td>
</tr>
</tbody>
</table>
Q12: Please select the category/categories of systolic BP levels that reflect prehypertension/high normal blood pressure.

- High normal systolic BP: 130-139 mmHg

% of responses

- Systolic BP 140-149 mmHg: 49
- Systolic BP 130-139 mmHg: 66
- Systolic BP 120-129 mmHg: 45
- Systolic BP 110-119 mmHg: 23
- Systolic BP 100-109 mmHg: 11

N=472
N=200
Summary (1):
knowledge and assessment of CV risk factors in a gynecological setting

- blood pressure: only 20% as a standard assessments
- unspecified examination of cardiac health/CV risks: 10%.
- hypertension and CV disease: ranked as 3rd and 4th most important diseases and indications recognized in menopausal women.
- when asked directly, almost all physicians state that they assess CV risk factors as a standard or at least in special cases (EU: 94%, USA 90%)
In cases when physicians do not measure factors that are perceived as easy to assess (e.g., diabetes and family history) the main reason is an attitude of not being responsible for these factors.
Q19: What guidelines for managing cardiovascular risks are you aware of?
Summary (3):
Management of CV risk factors and CV risk factors

- More than ⅓ of physicians: not aware of any of the guidelines shown.
- Around 50% are referred to a specialist.
- 80% receive advice for lifestyle changes.
- Physicians across all countries feel responsible to cooperate with other physicians for the treatment of CV risk factors and also involve specialists for determining CV risk factors. Treatment is to a higher extent seen to be the responsibility of a specialist.
- In case physicians treat CV risk factors, 26% prescribe antihypertensives and 32% HRT.
Knowledge and assessment of CV risk factors in a Belgian gynecological setting

✓ online electronic and anonymous survey
  (March - April 2008) (Nl + Fr)

✓ same criteria as the US/European 2007 survey

✓ 1184 Belgian gynecologists invited by mail

✓ answer rate : 4 % (n = 47)
Q1: In your practice, please name the most common assessments you do in menopausal women. Please note down the assessments in the order of their relevance. Open question

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Nombre de gynécologues</th>
<th>% de gynécologues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echographie gynécologique</td>
<td>35</td>
<td>85</td>
</tr>
<tr>
<td>Mammographie</td>
<td>32</td>
<td>78</td>
</tr>
<tr>
<td>Frottis de dépistage</td>
<td>31</td>
<td>76</td>
</tr>
<tr>
<td>Densité minérale osseuse</td>
<td>29</td>
<td>71</td>
</tr>
<tr>
<td>Bilan sénologique</td>
<td>17</td>
<td>41</td>
</tr>
<tr>
<td>Prise de sang</td>
<td>14</td>
<td>34</td>
</tr>
<tr>
<td>Tension artérielle</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>PAP</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Examen clinique</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>Poids et taille</td>
<td>6 (et 1 BMI)</td>
<td>15</td>
</tr>
<tr>
<td>Taux d’hormones</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Profil lipidique</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Histoire du patient</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Glycémie</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Tests thyroïdiens</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Urines</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Q4: In your current practice, do you assess cardiovascular risks in your menopausal patients?

<table>
<thead>
<tr>
<th>%</th>
<th>Belgium</th>
<th>Europe</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>17</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Yes, but only in certain cases</td>
<td>36</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Yes, almost always</td>
<td>47</td>
<td>86</td>
<td>80</td>
</tr>
</tbody>
</table>
Correct answers regarding the Metabolic Syndrome definition

- waist circumference ≥ 80cm: 40%

- category/categories of systolic BP levels that reflect prehypertension/high normal blood pressure: 42%
Should we screen for metabolic syndrome?

- YES
- and rationally, …
Should we screen for metabolic syndrome?

✓ ... before breast cancer and osteoporosis screening

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