USE OF PSYCHO-STIMULANTS IN PALLIATIVE CARE

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Background

More than 95% of patients experience fatigue near the end of life. Chemotherapy, radiation, and administration of opioids all tend to increase tiredness. Depression is also a common cause of suffering at the end of life; about 25% of cancer patients with early stage disease develop depression, in advanced illness more than three-quarters of all patients have symptoms of depression. See also Fast Fact #259 on modafinil.

Uses of Psycho-stimulants

Both fatigue and depression can be treated with one of the psycho-stimulants: dextroamphetamine, methylphenidate, or pemoline. Psycho-stimulants act rapidly and are well-tolerated. These medications have 6 potentially beneficial effects for patients with terminal illness:

- Mood elevation: a Cochrane analysis suggested that psychostimulants significantly reduce symptoms of depression, but long term efficacy is not established.
- Improved energy: a meta-analysis showed a small benefit of psychostimulants for cancer related fatigue and demonstrated little adverse effects.
- Potentiate analgesic effect of opioids
- Counter opioid-induced sedation
- Increase appetite
- Improve cognition

Practical Tips

For depression, psycho-stimulants are the drug of choice for patients with a relatively short life expectancy of weeks to months because they act quickly, usually within 24-48 hours. Psycho-stimulants are generally safe. However, they should be used with caution in patients with heart disease or cognitive disturbances (e.g. delirium). Pemoline, a milder psycho-stimulant, can rarely cause hepatotoxicity, requiring regular monitoring of hepatic function. Some patients with severe depression and a longer life expectancy benefit from starting a psycho-stimulant and then transitioning to a selective serotonin reuptake inhibitor anti-depressant (SSRI). Psycho-stimulants are also useful to augment the action of SSRIs in patients with severe depression.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Onset of action</th>
<th>Starting dose</th>
<th>Usual Daily Dose</th>
<th>Maximal Daily Dose</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dextroamphetamine, Methylphenidate</td>
<td>&lt;24hrs</td>
<td>2.5-5 mg</td>
<td>10-20 mg</td>
<td>60-90mg</td>
<td>8am and noon*</td>
</tr>
<tr>
<td></td>
<td>&lt;24hrs</td>
<td>2.5 mg</td>
<td>5-10 mg</td>
<td>60-90mg</td>
<td></td>
</tr>
<tr>
<td>Pemoline</td>
<td>1-2 days</td>
<td>18.75mg</td>
<td>37.5mg</td>
<td>150mg</td>
<td>Twice daily</td>
</tr>
</tbody>
</table>

*some patients may need a late afternoon booster dose (usually ½ the am dose)

References:


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