rivastigmine patches

No therapeutic advantage and less convenient than capsules

According to the summary of product characteristics (SPC), the doses to be used with the transdermal patches differ from those with capsules or oral solution (1). Details concerning dose equivalents when switching from oral to patch administration are provided in the summary of product characteristics (1). Patches are less convenient to use than capsules. They must be changed every day and applied to the upper arm, chest or back, on a hairless area. Application to “the exact same skin location within 14 days should be avoided to minimise the potential risk of skin irritation” (1).

Rivastigmine, similarly to other cholinesterase inhibitors, has only limited and transient benefits in the treatment of mild to moderate forms of Alzheimer’s disease (6). In summary, rivastigmine patches provide no practical advantages over rivastigmine capsules. It is therefore better to avoid using them.

In April 2008 a new transdermal patch formulation of rivastigmine, a cholinesterase inhibitor, was added to the products marketed under the brand name Exelon® (Novartis) (1). The patches are only marketed for symptomatic treatment of “mild to moderately severe Alzheimer’s dementia” (1). The capsules and oral solution are also approved for the treatment of dementia in patients with Parkinson’s disease, but they have a negative risk-benefit balance (1, 2).

A 24-week double-blind trial in 1195 patients compared rivastigmine patches (9.5 mg/24 h) versus rivastigmine patches (17.4 mg/24 h) versus rivastigmine capsules (12 mg/day) versus placebo patches. Validated scales were used to assess cognitive function, the physician’s global clinical impression and the patient’s ability to conduct activities of daily life. The 9.5 mg/24 h patches were statistically more effective than the placebo patches but the benefit was modest at best and similar to that of the 12 mg/day capsules (3-5).

The main adverse effects observed in patients using the patches delivering 9.5 mg/24 h were skin reactions at the application site, gastrointestinal disorders (nausea, vomiting, loss of appetite, diarrhoea), neuropsychiatric disorders (headache, syncope, anxiety, depression), bradycardia, and even death (1, 3, 4). Nausea was more frequent with the capsules than with the patches delivering 9.5 mg/24 h (23% versus 6.2%) as was vomiting (17% versus 6.2%) (1, 3, 4). The 12 mg/day dose is the maximum oral dose, and there might be less difference in the incidence of adverse effects with an oral dose of 6 or 9 mg/day (a)(1).

The CHMP did not approve the patches delivering 17.4 mg/24 h, due to a negative risk-benefit balance (3).

Selected references from Prescrire’s literature search.
3- EMEA - CHMP “EPAR Exelon (rev. 16) - Scientific discussion” 17 September 2007: 19 pages.