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Selegiline Transdermal System: In the Treatment of Major Depressive Disorder

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Monoamine oxidase (MAO) inhibitors have proven efficacy in the treatment of patients with acute or chronic major depressive disorder (MDD). They are more effective than tricyclic antidepressants (TCAs) in patients whose depression is characterised by atypical features (e.g. reverse vegetative symptoms, marked lethargy/anergy, extreme rejection sensitivity) and, additionally, appear useful in individuals with treatment-resistant depression, including those with TCA-resistant depression. MAO inhibitors are not, however, considered firstline drugs because of their potential to cause serious adverse events (e.g. dietary tyramine-induced hypertensive crisis) and because their drug interaction risk is higher than that of other antidepressant medications.

Against this background, the selegiline transdermal system seems to a be a promising development. In particular, by eliminating the need for dietary tyramine restrictions, it has the potential to enhance patient compliance with MAO inhibitor therapy. The selegiline transdermal system demonstrated superiority over placebo and was well tolerated, both in acute therapy studies and in a 1-year relapse-prevention trial. The next step is to evaluate the efficacy and tolerability of the selegiline transdermal system in relation to that of other new and established antidepressants, including single-acting agents (e.g. selective serotonin reuptake inhibitors and norepinephrine reuptake inhibitors) and dualagents (e.g. serotonin-norepinephrine reuptake inhibitors, buproprion and mirtazapine). These studies should include and/or focus on subgroups of patients with atypical symptoms as well as those with treatment-resistant depression.

Thus, the current lack of active comparator-controlled studies (including in patients with treatment-resistant depression) notwithstanding, the selegiline transdermal system represents a further expansion of the pharmacotherapeutic repertoire in the treatment of MDD, as it combines the well established antidepressant effectiveness of MAO inhibitor therapy with good tolerability and, furthermore, may improve treatment compliance.