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Fluoxetine, Olanzapine

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Fluoxetine

A Review of its Therapeutic Potential in the Treatment of Depression Associated with Physical Illness

Susan M. Cheer and Karen L. Goa

Adis International Limited, Auckland, New Zealand

Various sections of the manuscript reviewed by:

M. Ansseau, Psychiatric Unit, Liege, Belgium; *M. Isaac*, Psychopharmacology Evaluation Unit, University Hospital, London, England; *M. Lader*, Institute of Psychiatry, London, England; *S.H. Preskorn*, Psychiatry Department, University of Kansas School of Medicine, Wichita, Kansas, USA; *J.G. Rabkin*, Department of Psychiatry, College of Physicians and Surgeons, Columbia University, New York, New York, USA.

Data Selection

Sources: Medical literature published in any language since 1966 on Fluoxetine, identified using Medline and EMBASE, supplemented by AdisBase (a proprietary database of Adis International, Auckland, New Zealand). Additional references were identified from the reference lists of published articles. Bibliographical information, including contributory unpublished data, was also requested from the company developing the drug.

Search strategy: Medline search terms were 'Fluoxetine' or 'LY 110140' and ('cardiovascular-diseases' or 'neoplasms' or 'HIV' or 'acquired-immunodeficiency-syndrome' or 'diabetes-mellitus' or 'hypotension-orthostatic'). EMBASE search terms were 'Fluoxetine' or 'LY 110140' and ('stroke' or 'cardiovascular-disease' or 'cancer' or 'human-immunodeficiency-virus' or 'acquired-immune-deficiency-syndrome' or 'diabetes-mellitus' or 'heart-infarction' or 'orthostatic-hypotension'). AdisBase search terms were 'Fluoxetine' or 'LY 110140' and ('stroke' or 'cardiovascular-disease' or 'cardiovascular-disorders' or 'cancer' or 'HIV' or 'acquired-immunodeficiency-syndrome' or 'diabetes-mellitus' or 'orthostatic-hypotension'). Searches were last updated 24 Oct 2000.

Selection: Studies in patients with depression and HIV/AIDS, diabetes mellitus, stroke or cancer who received fluoxetine. Inclusion of studies was based mainly on the methods section of the trials. When available, large, well controlled trials with appropriate statistical methodology were preferred. Relevant pharmacodynamic and pharmacokinetic data are also included.

Index terms: fluoxetine, comorbid physical illness, depression, pharmacodynamics, pharmacokinetics, therapeutic use.

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Summary

Abstract

Fluoxetine is a potent and selective inhibitor of neuronal serotonin (5-hydroxytryptamine) reuptake. Fluoxetine reduces food, energy and carbohydrate intake and increases resting energy expenditure, which may account for the moderate and transient bodyweight loss observed with its use. Glucose tolerance and/or hypoglycaemia in patients with type 2 diabetes mellitus improve with fluoxetine therapy.

The ability of fluoxetine to inhibit cytochrome P450 (CYP) isoenzymes (CYP2D6, CYP2C and CYP3A4), is potentially important for patients with physical illness who may be taking multiple concomitant medications.

Fluoxetine was more effective than placebo in 2 double-blind, randomised trials, and according to limited data appears to be equally effective compared with other SSRIs and tricyclic antidepressants (TCAs), in the treatment of depression in patients with HIV/AIDS. The efficacy of fluoxetine is also superior to that of placebo in the treatment of depression in patients with diabetes mellitus and stroke as shown in double-blind randomised trials, although its efficacy relative to that of nortriptyline in stroke is uncertain. Fluoxetine had similar efficacy to that of desipramine in patients with cancer, with improved Hamilton Depression Rating Scale and quality-of-life scores from baseline; however, the drug was not more effective than placebo in a double-blind randomised trial.

Medically healthy individuals tolerate fluoxetine well. Like other SSRIs, fluoxetine lacks the anticholinergic, cardiovascular, sedative and weight-increasing properties of TCAs, and is safer in overdose than TCAs and monoamine

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