Choosing between SSRIs and TCAs

In the article "Pharmacologic treatment of depression in late life" (*CMAJ* 1997;157[8]:1061-7), Dr. Alastair Flint gives a thorough and comprehensive review of the treatment of depression. He mentions that to his knowledge, "only 1 trial has compared an SSRI [selective serotonin reuptake inhibitor] (sertraline) with a secondary amine TCA [tricyclic antidepressant] (nortriptyline), and both drugs were equally well tolerated." However, he fails to include the results of 2 recent randomized controlled trials that have examined this question. The first was a 12-week, double-blind, randomized placebo-controlled trial comparing the efficacy of sertraline with that of imipramine in the treatment of depression.[1] Eighteen percent of patients taking imipramine discontinued their medication because of adverse effects, whereas only 6% of those taking sertraline and 4% of those receiving a placebo did so. This 14% absolute risk increase (18% – 4%) means that 1 in every 7 patients (100/14) taking imipramine for 12 weeks but only 1 in 50 patients (100/2) taking sertraline for the same period will experience an adverse effect.

The second study examined the cost and the clinical efficacy of fluoxetine relative to those of imipramine and desipramine.[2] The proportion of patients who discontinued their medication before the 1-month assessment because of adverse effects was significantly lower among those taking fluoxetine (9%) than among those taking desipramine (27%) or imipramine (28%).

Although there is sufficient anecdotal evidence suggesting that SSRIs may have a lower adverse effect profile than TCAs, the scientific evidence behind this claim is not overwhelming. However, the results of these 2 trials, along with previous findings,[3] suggest that SSRIs should be used to treat depression in patients who cannot tolerate TCAs because of adverse effects, especially elderly patients.

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[The author responds:]

In my review I noted that the secondary amine TCAs nortriptyline and desipramine are less likely to induce side effects than the tertiary amine drugs such as amitriptyline and imipramine. Therefore, when a TCA is given to an elderly person, it is preferable to use a secondary amine drug. I also noted that there is no evidence from controlled trials that elderly patients tolerate SSRIs better than secondary amine TCAs. In all published studies comparing the effects of an SSRI with those of a TCA in elderly patients, the TCA was a tertiary amine drug. Only one study, which was presented as a poster, involved a comparison between an SSRI and a secondary amine TCA, and both drugs were tolerated equally well.[1]

Etminan cites 2 studies to suggest that SSRIs are, in fact, better tolerated than secondary amine TCAs in the treatment of late-life depression. However, neither of the cited studies examined this issue. The first, by Thase and associates[2] compared an SSRI with a *tertiary amine* TCA (imipramine) in young and middle-aged adults with dysthymia. The study by Simon and collaborators[3] did include a secondary amine TCA (desipramine), but the median age of the subjects was 41 years and only 7% of the sample was aged 65 years or older. The findings of the second study cannot necessarily be extrapolated to elderly patients, who may be more sensitive to the adverse effects of SSRIs than younger patients. Furthermore, neither the patients nor the physicians in the study were blinded as to the type of antidepressant being prescribed, which may have influenced the rate of discontinuation of treatment.

Compared with TCAs, SSRIs are safer, and there are fewer limitations to their use in elderly patients. However, secondary amine TCAs retain an important role in the treatment of late-life depression. To date, there is no evidence that, in appropriately selected elderly patients, secondary amine TCAs are less well tolerated than SSRIs.

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The BSE advantage

In the article "Effect of breast self-examination techniques on the risk of death from breast cancer" (*CMAJ* 1997;157[9]:1205-12), Dr. Bart J. Harvey and colleagues conclude that breast self-examination (BSE) reduces the risk of death. However, in the accompanying editorial "Is breast self-examination still necessary?" (*CMAJ* 1997;157[9]:1225-6), Dr. Gregory Hislop questions the efficacy of BSE and therefore its value.

Tumour size and breast cancer prognosis are related, but it has never been clearly established that the difference in the size of a cancer discovered by a woman who routinely performs BSE and that of a lesion discovered incidentally influences the prognosis. In that regard, Harvey and colleagues have provided some important information.

In both articles, the authors concentrate on only a single reason for performing BSE, but not necessarily the most important one. Almost certainly the greatest benefit of regular BSE is the recognition and understanding of naturally occurring changes in the breast during the various phases of a woman's life. In young women, cyclic hormonal effects cause changes that are often perceived as abnormal by women not accustomed to regular BSE. At no time are these changes more evident than perimenopausally, a time when the prevalence of cancer begins to increase.[1] As more postmenopausal women receive hormone replacement therapy, such hormonal effects will continue into the postmenopausal stage, a time when the prevalence of cancer increases sharply.

A woman's knowledge about her breasts can greatly facilitate accurate diagnosis. Many physicians are insecure about breast diagnosis and are assisted when a woman is confident that a recently discovered abnormality is new and different. Similarly, insignificant changes can be dismissed and the need for invasive testing reduced.

The work of epidemiologists contributes to clinical decision-making, but some clinical functions do not lend themselves to statistical analysis or even reliable prospective clinical trials. Lack of hands-on clinical experience by investigators can result in a biased focus. It would be unfortunate if physicians did not encourage their

Research letter: Antibacterial activity of fluorescein

We conducted a simple experiment to determine if fluorescein has any antibacterial activity after one of us questioned its possible deleterious effect on bacteria if applied to an eye before collection of a swab for culture. A literature search failed to produce any information on this topic.

Antibiotic susceptibility plates (Mueller–Hinton medium, BBL, Baltimore, Md.) were streaked (according to the Kirby–Bauer method[1]) with 1×10^8 organisms/mL of the following ATCC (American Type Culture Collection) strains: *Moraxella catarrhalis*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Streptococcus pneumoniae* (Mueller–Hinton medium with 5% sheep blood) and *Haemophilus influenzae* (*Haemophilus* testing medium). A fluorescein sodium strip, instead of an antibiotic disk, was applied to each of the plates.

After overnight incubation at 35°C, a large zone of inhibition was observed around the fluorescein strip for *M. catarrhalis*, *S. pneumoniae* and *H. influenzae*. There was no inhibition zone for *S. aureus* or *P. aeruginosa*.

We conclude that swabs for culture should be taken before fluorescein is applied to the eye, because of its antibacterial activity against organisms such as *M. catarrhalis*, *S. pneumoniae* and *H. influenzae*, pathogens that are frequently found in the eye.

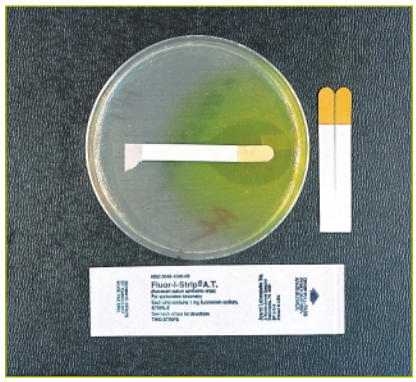

Fig. 1: A large zone of inhibition appears around a fluorescein strip in a *Haemophilus* testing medium plate. Also shown are 2 unused strips and the wrapper.

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