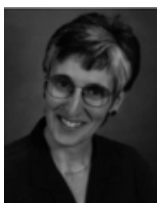




"Taken to the Outlet"



By Marlene M. Mirassou, MD

An old ECT machine triggers memories of the way things used to be.

The author, until recently a member of the SSVMS Editorial Committee, is retired from UC Davis and has relocated to Santa Cruz to be nearer her fiancé; they will marry in July. She has started working as a campus psychiatrist at UC Santa Cruz.

WHEN I VISITED THE SSVMS MUSEUM recently, the old electroconvulsive treatment (ECT) machine on display brought to mind how I learned the treatment technique when a resident in psychiatry in Wisconsin in the 1970s.

The ECT machine I first used was even older than the model in the museum. It was a small black box with latched cover, cords, electrodes and minimal controls. The power knob had low, medium and high settings and a "glissando" setting. The gradual increase in power produced with the glissando was thought to be helpful when the machine was made, though not when I learned the technique.

I suspect the machine may have been 20 years-old or more. The technology was so primitive that instead of a timer for the stimulus, the physician counted "one-one thousand..." for the duration of stimulus desired. The machine hadn't been used much in the years prior to my request to learn to treat patients with ECT, but a new psychiatry faculty member from another medical school was experienced in ECT treatment and wanted to be able to use ECT for patients in need of it and to teach residents.

Treatment was carried out in a sunny corner of the recovery room with a nurse anesthetist who was willing to help us. We selected our patients carefully, based on severity of depression and lack of response to other treatments. Fortunately, though ECT had been used little in Milwaukee in the previous decade because of the advent of antidepressants that were easier to use (desipramine, nortryptiline and the like), it had not become a political issue as it had in California at that time.

As much as their illnesses allowed, we included our patients in the decision to use ECT. Some of our patients had been successfully treated with ECT in the past so they and their families were greatly relieved by the prospect of treatment again. Maintenance of oxygenation, muscle relaxation, and monitoring of the seizure duration by use of a limb isolated from the muscle relaxant were carefully practiced. We followed our patients' improvement in mood and modified our treatments if confusion was marked.

Later in my career, when at UC Davis Medical Center, I worked in an inpatient psychiatric unit and I refreshed my knowledge and skills in the use of ECT. The equipment was much more sophisticated and much had been learned about electrode placement, stimulus waveforms and other aspects of treatment. Confusion in our patients was less of an issue though memory complaints still occurred. Again, we had many good responses, though as in most of medicine, not all patients responded as well as we hoped.

In both settings, the treatment teams and almost all of our patients were rewarded with the

patients' improvement in mood. Though I do recall one woman whose dysthymia didn't get better, I also recall how much she had wanted electroconvulsive therapy because of her lack of much improvement from extensive previous psychotherapy and medication treatment and how well her side effects cleared after treatment.

Though some patients noted persistent memory problems for the time immediately prior to their treatments and during the course of treatment, it was never clear how much was due to the ECT and how much was due to the severity of their depressions, as major depression can significantly interfere with memory. Certainly, the problems with adverse effects decreased with the improved technique.

Though I am well aware of the negative view of many regarding ECT, I suppose I had approached it with a more positive opinion since one of my relatives had received at least one course of ECT in her life. When her major depression was treated with ECT, it allowed her to go on to many more years of life she could enjoy; one of her sisters had died in a state mental hospital with the same disease.

Later in my life, I encountered a medical student with severe nonresponsive depression who returned to his prior excellent performance in medical school and graduated after a successful course of ECT, reinforcing my view of electroconvulsive therapy as a life-saving treatment in more than one way.

Of course, there is that long-standing negative image of ECT. Some of that negative attitude was likely warranted in the past when ECT was applied for inappropriate reasons - such as at the request of a husband to calm an unruly wife. Its earlier years were crude and the representation of its crudeness and negative results in public media such as the images in "One Flew Over the Cuckoo's Nest" certainly would make it seem only a punishment with no redeeming virtues.

I can't deny that there is still the potential for negative effects even with present improvement of technique and better selection of candidates for treatment, though risks are massively less than in the past. We still don't know its mechanism of effect, either.

We've come a long way in so many medical treatments since the beginning of my medical career and some therapies have been determined ineffective or too dangerous to warrant limited benefit. At present, electroconvulsive treatment continues to present significant benefit with relatively low adverse effects. Even with increasing responses to improved antidepressants and improved psychotherapies and their combinations, ECT continues to be a viable treatment.

I know that, had I a major depression non-responsive to reasonable trials of other treatment, I would want to be taken "to the outlet."

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