“Shock Therapy Loses Some of Its Shock Value”
By JANE E. BRODY

For an older woman I know who was suffering from “implacable depression” that refused to yield to any medications, electroconvulsive therapy — popularly called shock therapy — was a lifesaver.

And Kitty Dukakis, wife of the former governor of Massachusetts and 1988 Democratic presidential nominee, says ECT, as doctors call it, gave her back her life, which had been rendered nearly unlivable by unrelenting despair and the alcohol she used to assuage it.

Neither woman has experienced the most common side effect of ECT: memory disruption, though Mrs. Dukakis recalls nothing of a five-day trip to Paris she took after her treatment.

The television host Dick Cavett, who also had the treatment, wrote in People magazine, “In my case, ECT was miraculous.”

Mr. Cavett added, “It was like a magic wand.”

But for a man I know who was suicidally depressed and given ECT as a last resort, it did nothing to relieve his depression but destroyed some of his long-term memory.

Such differences in effectiveness and side effects are not unusual in medicine and psychiatry, and they are not played down in a new book called “Shock,” which Mrs. Dukakis wrote with Larry Tye, a former Boston Globe reporter. The book, in which Mrs. Dukakis details her experience with depression and ECT, explores the history, effectiveness and downsides of this nearly 70-year-old treatment, a remedy that has been repeatedly portrayed in film and literature as barbaric, inhuman, even torturous.

Few people seem to know that ECT has undergone significant changes in recent decades, placing it more in line with widely accepted treatments like those used to restart a stopped heart or to correct an abnormal heart rhythm. After a rather precipitous decline in the 1960’s when effective antidepressant drugs became available, ECT since the 1980’s has experienced something of a comeback, and is used primarily in these circumstances:

• When rapid reversal of a severe or suicidal depression is needed.
• When depression is complicated by psychosis or catatonia.
• When antidepressants and psychotherapy fail to alleviate a crippling depression.
• When antidepressants cannot safely be used, such as during pregnancy.
• When mania or bipolar disorder do not respond to drug therapy.

Though there is no official count, experts estimate that more than 100,000 patients undergo ECT each year in the United States.

ECT was developed in the 1930’s by an Italian neurologist, Ugo Cerletti, who “tamed” difficult mental patients with electric shocks to the brain after noting that such shocks given to hogs before slaughter rendered them unconscious but did not kill them. In its first decades of use, ECT was administered to fully conscious patients, causing them to lose consciousness and experience violent seizures and uncontrolled muscle movements that sometimes broke bones. It was sometimes used in patients without their consent, or at least without informed consent.

And while evidence for its effectiveness did not extend much beyond depression, for a time ECT was applied to patients with all kinds of emotional disturbances, including schizophrenia. It was also widely used in mental hospitals to punish or sedate difficult patients, as was graphically depicted by Jack Nicholson in the movie “One Flew Over the Cuckoo’s Nest.”

Some people may also recall that Ernest Hemingway, who suffered from life-long and often self-medicated depression, committed suicide in 1961 shortly after undergoing ECT. He had told his biographer: “Well, what is the sense of ruining my head and erasing my memory, which is my capital, and putting me out of business? It was a brilliant cure, but we lost the patient.”

A Modified Treatment

Though the impression of ECT left in the public mind by such films and writings persists, ECT today is a far more refined and limited therapy. Most important, perhaps, is the use of anesthesia and muscle relaxants before administering the shock, which causes a 30-second convulsion in the brain without the accompanying movements. Thus, there is no physical damage. The pretreatment also leaves no memory of the therapy itself.
The amount of current used today is lower and the pulse of electricity much shorter — about two seconds — reducing the risk of post-treatment confusion and memory disruption. While memory losses still occur in some patients, now the most serious risk associated with ECT is that of anesthesia.

Most patients require a series of six to eight treatments, delivered over several weeks. As my friend discovered, however, it is not universally effective. About three-fourths of patients are relieved of their debilitating symptoms at least temporarily. The remaining one-quarter are not helped, and some may be harmed.

Despite its long history, no one knows how ECT works to ease depression and mania. There is some evidence that it reorders the release of neurotransmitters, favoring an increase of substances like serotonin, which counters depression. Some experts view it as a pacemaker for the brain that disrupts negative circuitry.

The beauty of ECT is the speed with which it works. Antidepressants can take as long as six weeks to relieve serious depression. Mrs. Dukakis reported that she had begun to feel better after the first in an initial series of five outpatient ECT treatments given over a two-week period.

A Stopgap Measure

But — and this is a big but — ECT is not a cure for depression. It is more like a stopgap measure that brings patients to a point where other approaches, including antidepressants and cognitive behavioral therapy, can work to stave off relapses. Although some ECT patients never relapse, most are like Mrs. Dukakis, who over the course of four years has come back for seven more rounds of ECT. She explained that while she used to deny the early signs of a recurring depression, she now calls her doctor “as soon as I spot the gathering clouds.”

“ECT has wiped away that foreboding,” she wrote, and “given me a sense of control, of hope.” It has also helped her get off antidepressants, which had side effects like bowel, sexual and sleep disturbances and an inability to experience “the full range of my feelings.”

ECT should not be administered without the patient's (or the patient’s surrogate's) fully informed consent, which includes consideration of all possible side effects. The most common side effects are headache, muscle soreness and confusion shortly after the procedure, as well as short-term memory loss, which usually improves over a period of days to months.

But according to the American Psychiatric Association, there is no evidence that ECT causes brain damage. Abuse of the procedure has declined strikingly. Today fewer than 2 percent of patients hospitalized in psychiatric facilities in New York State receive ECT. Properly used, it can be lifesaving.

Though there is not nearly the money to be made from ECT that there is in selling antidepressants, work on improvements continues. Modern ECT is sometimes delivered to only one side of the brain, reducing the chances of memory deficits.

Another new approach uses a magnetically induced current that can be aimed at specific regions of the brain, possibly altering them permanently. An advantage of this treatment, however, is that it does not require the use of anesthesia.