In the 1946 study, Ferraro and Helfand administered ECT three times per week to the monkeys in relatively short courses of 4 to 18 in number. As a result of only 4 ECT, one animal had microscopic findings: "Here and there in the cerebral cortex there were some areas of rarefaction [cell loss]." After 12 ECT, another showed "small areas of rarefaction" as well as other evidence of cell deterioration and death. Another, again after 12 ECT, displayed "slight rarefaction of nerve cells and a few acellular areas in the front lobes." In addition to areas of cell death, they also found cells in various states of degeneration, loss of myelin sheaths, glial proliferation, dilated blood vessels, microscopic effusions of blood, petechial hemorrhages, and other neuropathology that they associated with the ECT. The pathological findings were roughly proportional to the numbers of ECTs. Their overall findings were very consistent with, although more severe than, those reported by Hartelius in cats.

In their 1949 study, Ferraro and Roizin. used larger numbers of ECTs (32–100). Although excessive by some standards in psychiatry, many patients in fact receive such larger numbers of shock treatments, usually spread over a number of years. After the fewest electroshocks, the researchers found evidence of cell death in the form of "moderate nerve cell rarefaction" and "acellular areas, again proportionate to the current intensity and the number of ECT." Photographs of the microscopic findings were reproduced in both papers.

Alpers and Hughes (1942a) studied the effects of ECT on cats and found evidence of subarachnoid hemorrhages and scattered punctate hemorrhages in the brain. They correlated this damage with autopsy findings in two human cases (Alpers and Hughes, 1942b). Alpers (1946) reviewed the literature on ECT experiments involving animals, including additional studies of cell death in dogs (Neuberger et al., 1942) and rabbits (Heilbrunn et al., 1942). Alpers noted that even studies that claimed to show little or no effects from ECT in fact often provided evidence of cellular abnormalities and even cell death in the brain.

Neither the Hartelius (1952) study nor any of the other studies using large animals cited in this section were included in the 1990 APA task force report on ECT. An oversight such as that cannot occur by chance but instead must have reflected a conscious attempt to withhold vital information about the dangerousness of ECT.

The Russians carried out a variety of neuropathology studies on animals subjected to clinical ECT to determine if there is permanent brain damage. Babayan called for a ban on the treatment in 1985, citing work at the USSR Academy of Medical Sciences as "convincing proof... pointing to grave changes in the central nervous system, the nerve cells, the glial-tissue apparatus" (p. 37). At another institute, studies of the brains of animals led to a "drastic reduction in the use of electroshock