PD-71

The Morphological Changes on the Brains of New Born Rats whose Parents were Administered DBP

Ippei Yamato, Masaki Sekiguchi, Osamu Tanaka, Hideko Hanamoto, Kanji Seiki

Department of Morphology, Tokai University School of Medicine, Japan

We orally administered phthalic-n-butyl (DBP), which is a chemical suspected of having endocrine disrupter, to pregnant rats to morphologically observe its effects on the brains of newborn rats they had given birth to. For each day, (E1～E20), the experimental group (DBP treatment group) was given DBP dissolved in corn oil, while the control group was given corn oil only. We had done perfusion fixation to the anesthetized baby rats that were just born, to get a microscopical observation of the morphological changes in their brains. The thickening of Caudate Putamen neuroepithelieum (CPN) was observed in high frequency for the experimental group (DBP treatment group) in comparison to the control group. It is confirmed from our present study that the prescription of DBP to pregnant rats induces morphological changes on the brains of their babies. It is also confirmed that the thickening of CPN may be induced by the delay of neural migration from the lateral ventricle.

Here, we conclude that DBP seems to affect the development and differentiation of neurons.