

BRAIN RESPONSE TO LASER BEAM INJURY. AN ELECTRON MICROSCOPIC STUDY.

BERTA GONZALEZ¹, BERNARDO CASTELLANO² and GASPAR ORRIOLS^{3, 4}.¹ Dto. Histol. Fac. Ciencias; ² Dto. Histol. Fac. Med. and ³ Dto. Fisica Fundamental. Universidad Autónoma de Barcelona.

The application of Lasers to dermatologic and ophthalmologic research has been the subject of a intensive investigation. However, the effects of Laser Beam on the Central Nervous System are uncertain. More availables data are necessaryes for determine the glial reaction to the injury, neuronal damage, regeneration capacity, and decide if such damage-technique can have a practice application. In order to obtain new and profitable information was undertaken the present work.

Brains of anaesthetized quails (postnatal and adult animals) were the target of Spectra-Physics argon laser used. Different levels power (400-1000 mW) with distincts times of incidence (0,04 - 1,00 seg.) were tested. With the aid of a optical system the beam of light was advantageously focused until to obtain a damage zone of about 50 μm \emptyset . After injury, animals were sacrificed at different times, brains removed and beyond inclusion in Araldite, ultra-thin sections studied at E.M.