A technique allowing e.e.g. and activity recording together with intraventricular administration of drugs in the conscious rabbit

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This technique allows simultaneous e.e.g. and behavioural activity recording in the conscious rabbit and facilitates intraventricular administration of drugs.

1. The e.e.g. potentials are picked up by stainless steel screws inserted in the skull and are led via a multi-channel miniature electrical connector (ITT Cannon, Basingstoke) to the recorder.

2. The intraventricular cannula described by Hayden, Johnson & Maickel (1966) for use in the rat proved equally suitable for the rabbit. Constructed of Perspex, its lighter weight compared with that of commercially available cannulae is advantageous. Confirmation of the implantation site (lateral ventricle) and the patency of the cannula after implantation was readily determined by withdrawing cerebrospinal fluid into a sterile Hamilton syringe (10 μl, 701 RN).

3. Behavioural activity was recorded simultaneously with the e.e.g. recordings on a polygraph by means of an ultrasonic Activity Monitor (C. F. Palmer, High Wycombe, Bucks.). The ultrasonic transducers were mounted vertically above the box in which the animal was placed.

The screws, connector and cannula were attached during halothane anaesthesia using standard aseptic techniques. After recovery animals prepared in this way have shown no overt deviation from normal behaviour and have remained healthy giving good e.e.g. records for up to a year.

REFERENCE

HAYDEN, J. F., JOHNSON, L. R. & MAICKEL, R. P. (1966). Construction and implantation of a permanent cannula for making injections into the lateral ventricle of the rat brain. *Life Sciences*, **5**, 1509–1515.

Microiontophoretic study of depressant amino acids and the specificity of their antagonists

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Attempts to examine the specificity of convulsants, applied microiontophoretically, as GABA antagonists in the cerebral cortex have been limited by the absence of an effective control agonist (see Hill, Simmonds & Straughan, 1972). It seemed worthwhile, therefore, to find an alternative brain area in which to continue our investigations. The cuneate nucleus would seem to be the area of choice since cuneate neurones are readily sensitive to both GABA and glycine (Galindo, Krnjević & Schwartz, 1967). Further, this nucleus is easily accessible, no surgical removal of the cerebellum being required (cf. other brain stem sites) and no special supports are needed for the animal (cf. spinal cord sites).

All cats are anaesthetized with halothane in N_2O/O_2 for the duration of the experiment. A midline incision down to the nape of the neck is continued through the cervical musculature, which is then reflected to reveal the atlanto-occipital membrane. The membrane is removed and the bone overlying the cerebellum chipped back until the cerebellar vermis is revealed. A specially designed pressor foot is inserted through this opening and serves to prevent respiratory pulsations, which can be a great problem when working in brain stem areas.