would explain the exaggerated response to bacterial pyrogen observed after 6-OH-DA treatment.

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Effects of some dopamine receptor stimulants on cobalt-induced epilepsy in the rat

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In adult male PVG rats epileptogenic lesions were produced in frontal motor cortex by the implantation of cobalt. The method has been described in detail previously (Dow, McQueen & Townsend, 1972). Electrocorticograms (ECoG) were recorded from the conscious animal and taped records were analysed for epileptiform spikes by the computer techniques of Hill & Townsend (1973). The drugs were administered intraperitoneally to rats between one and three weeks after cobalt-implantation when both primary and secondary foci are established. DL-amphetamine (0.25-10 mg/kg), apomorphine (1-10 mg/kg) and ergocornine (2.5-10 mg/kg) suppressed firing from the foci in a dose-related manner. This effect could be reduced by prior administration of spiroperidol (0.5 mg/kg) which itself exacerbated cobalt-induced spikes. However, ET495 (7-2″pyrimidyl)-4-piperonyl-piperazine) reported to be a specific dopamine receptor stimulant (Corrodi, Fuxe & Ungerstedt, 1971) did not suppress the epileptiform spikes in the dose range 1-20 mg/kg i.p. The possible sites of action of these drugs and the implications of the results will be discussed.

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