ence of the lateral geniculate body is necessary for the appearance of this type of response, the hypothesis may be made that this effect is produced by convergence of several geniculate cells on a single unit of the superior colliculus.

Riassunto. Alcune unità del collicolo superiore nel gatto pretrigeminale vengono attivate da un oggetto in movimento lungo un arco di 6–12° oppure di 30–45°. La velocità, direzione, verso e piano di spostamento sono differenti per ogni unità. La decorticazione completa non modifica le risposte unitarie, mentre la distruzione dei due nuclei genicolati laterali abolisce le risposte ai movimenti di massima ampiezza.

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Interruption of Pregnancy by 5-Azacytidine

5-Azacytidine[1], a synthetic analogue of cytidine, markedly inhibits the development of the transplanted leukaemia of AKR mice[2], as well as the synthesis of nucleic acids by cells of monkey kidney in tissue culture[3] and by isolated nuclei of calf thymus[4]. In the course of a study of its biological effects, we were interested to learn whether it causes an interruption of pregnancy, as do several other antimetabolites[5–7].

Non-inbred albino mice of the Konárovice strain, kept under constant conditions, were used in our experiments. The day of mating was determined from vaginal smears. 5-Azacytidine was administered intraperitoneally in daily doses of 2.5 mg/kg (in 0.25 ml of saline solution). The drug was administered on the following days, respectively, after mating: 1 through 6, 1 through 3, 4 through 6, 6 through 12, 12 through 18. Control animals were given the same volume of saline. On the 19th day the mice were sacrificed by cervical dislocation, the uteri excised, and the numbers of living and resorbed embryos estimated.

5-Azacytidine interrupts pregnancy during the first week, while during the last 10 days of pregnancy it has no discernible effects. Its activity increases during the first days of pregnancy, and the optimum is reached between the 4th and the 6th day. The effects of the compound with respect to time are very similar to those of 6-azauridine and 6-azacytidine[8], in spite of the fact that the two types of aza-analogues have different mechanisms of action at the molecular level. Similarly, the relation of the effective dose to the lethal dose is in both cases almost the same. Thus, effective doses of 6-azacytidine, with an LD_{50} of over 10g/kg, vary between 100 and 400 mg/kg, while in the case of 5-azacytidine, with an LD_{50} of 68 mg/kg, the dose needed was only 2.5 mg/kg.

It may be emphasized that the dose used in our experiments caused no manifestations of toxicity in pregnant females.

Interruption of pregnancy by 5-azacytidine

Administered	Days of treatment after mating	Total no. of animals	No. of uteri with resorptions	Total no. of embryos	No. of resorbed embryos	% of resorbed embryos (total no. of embryos = 100%)
0.25 ml of saline	1– 6	10	2	67	6	9.0
	1– 3	5	2	43	5	11.6
	4– 6	5	1	45	4	8.9
	6–12	10	2	56	3	5.4
	12–18	10	1	63	1	1.6
50 µg of 5-azacytidine in 0.25 ml of saline	1– 6	10	9	62	52	84.0
	1– 3	5	4	25	15	60.0
	4– 6	5	5	52	52	100.0
	6–12	10	6	57	12	21.0
	12–18	10	2	64	2	3.1

Zusammenfassung. Bei Mäusen unterbricht 5-Azacytidin die Schwangerschaft, und ist maximal wirksam zwischen 4.–6. Graviditätstag.

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