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The study of salicylate-induced cleft lip on cultured rat embryos.  
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Sodium salicylate, a metabolite of aspirin, was showed to embryo toxicity in pregnant rats. As the typical type of malformation, cleft lip and cleft palate account for about 70 %. additionally, in the *in vivo* test system, bilateral and unilateral cleft lip was indentified. This finding may be due to the influence on maternal body. Therefore, we confirmed the effects of sodium salicylate on rat cultured embryos in the *in vitro* test system.

The rat embryos of 11 day of gestation were cultured for 72 hours. Sodium salicylate was given at 300 ug/ml, the amount developing malformation *in vivo*.

As result, bilateral cleft lip was hardly observed, but unilateral cleft lip was observed in 45 %. Among them, the disorder at the left side accounted for 15 %, and that at the right side accounted for 85 %. For the other effects on the growth index of the cultured embryos, heart beat was significantly decreased compared with the control group. Malformation including short tail, kinky tail and edema was combined. From the above, sodium salicylate developed right lateral cleft lip as its direct effect. It is considered that this finding may be associated with the developmental process of the left and right, lateral and medial nose of rat embryos.

Effects of pyridoxine on the male fertility. Shunsuke Tsutsumi, Toshimitsu Tanaka, Kohsei Gotoh and Masashi Akaike. Pharma R&D Division, Hoechst Japan Ltd., Kawagoe 350-11, Japan.

Pyridoxine (PN) was intraperitoneally given at 250 and 500 mg/kg to male rats for 2, 4, or 6 weeks, and its effects on the male fertility were evaluated to examine the optimal treatment period and parameters for the male fertility study. In all PN groups, the animals showed depression of body weight gains at and after 2 weeks of treatment. In both dose groups treated for 2 weeks, the testis had only very slight histopathological changes. The 4- and 6-week treatment caused a decreased spermatozoal motility and some histopathological changes in the testis including degeneration of epithelial cells at 250 and 500 mg/kg and also induced decreases in the fertility index and mean velocity of sperm, reduction in the testes and epididymides weights, and changes in the testicular proteins. In the animals subjected to a 4-week recovery period following 4 or 6 weeks of treatment, the changes disappeared at 250 mg/kg, but still remained at 500 mg/kg. From these findings, it is concluded that the treatment period of 4 weeks is sufficient for the evaluation of the drug effect on the male fertility and that the histopathology can detect the slightest toxic effects on the testis.