E-20 CONSTRICITIVE EFFECTS OF PARAQUAT ON THE DUCTUS ARTERIOSUS IN FETAL RATS
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The ductus arteriosus (DA) in the fetal rat was calibrated using a whole-body freezing method, 3 hr after maternal treatment with paraquat at a dose of 25 mg/kg on days 19-21 of gestation. On days 20 and 21, the DA was significantly constricted. The DA was also significantly constricted on day 19 2/3 but not on day 19 1/2. It is concluded that paraquat has a constrictive effect on the DA when administered in late stages of gestation and that the onset of this effect occurs in the first half of day 19 of gestation.

E-21 VISCERAL EXAMINATION OF RAT FETUSES USING UNFIXED SAMPLE — INVESTIGATION IN RATS ORALLY WITH ADMINISTERED BISDIAMINE —
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Bouin fixed samples in Wilson's technique are usually used for visceral examination of rat fetuses. However, certain limitations have been cited. For example, artifacts from autolysis, fixing and slicing were induced, and disappearance of natural coloration was noticed. In this presentation, we compared unfixed samples by Stockhardt's technique(unfixed method) with Bouin fixed samples by Wilson's and Nishimura's technique(Bouin fixed method) in bisdiamine treated rat fetuses.

Bisdiamine (400mg/kg) was administered orally to pregnant SD rats at gestation day 10. Dams were sectioned by cesarean on gestation day 20 and all fetuses underwent visceral examination. Half of the fetuses were unfixed, and the other fetuses were fixed in Bouin's solution.

A marked increase in heart and vascular anomalies such as aberrant subclavian artery, persistent truncus arteriosus and ventricular septal defect were observed in rats administered with bisdiamine. No difference in the incidence of visceral anomalies between the unfixed method and the Bouin fixed method were noticed. The unfixed method is quick and simple. Artifacts from autolysis, fixing and slicing are reduced.