Objective: To have a retrospective analysis of the medical history of premature infants delivered at Xinhua Hospital and to provide the epidemiological data.

Methods: 549 cases of singleton pregnancy premature infants delivered at Xinhua Hospital from January 2008 to December 2010 were enrolled in this study. The study group is consisted of 262 iatrogenic premature infants, and the control group 287 spontaneous premature infants. A comparative study was conducted among the iatrogenic preterm birth cases with the spontaneous ones in maternal outcome, early postnatal diseases incidence of premature infants and neonatal outcome.

Results: Severe preeclampsia was the most common cause of iatrogenic premature birth. Pregnant women underwent iatrogenic preterm birth had less regular antenatal examination than those who underwent spontaneous preterm birth. The average birth weight, the duration of hospitalization, rates of SGA were significantly different between the two groups. In early preterm birth, no difference was seen between two groups in early postnatal diseases incidence. The incidence of anemia, aspiration syndrome, apnea, asphyxia and NRDS of later preterm infants were significantly different between the two groups. But no difference was seen between two groups in IVH, hyperbilirubinemia, pneumonia, congenital heart disease and hypoglycemia.

Conclusion: Infants born after iatrogenic preterm delivery had less favorable outcomes than did those born after spontaneous preterm labor at later gestational ages (≥34 weeks). Adequate prenatal care of pregnancy should be enhanced, so as to decline the incidence of iatrogenic preterm birth.