

Effects of *Anoectochilus formosanus* Hayata extract and glucocorticoid on lung maturation in preterm rats

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摘要

Abstract

We investigated the effects of maternal administration of *Anoectochilus formosanus* extract and dexamethasone on lung maturation in preterm rats. *A. formosanus* group mothers were tube-fed *A. formosanus* extract (300mg/kg body wt./day) for 7 days from days 12 – 18 of gestation. Dexamethasone group mothers were injected intraperitoneally with dexamethasone (0.2mg/kg body wt.) in saline on day 18 of gestation. Control group mothers were similarly injected with saline alone. On day 19 of gestation, fetuses were delivered by cesarean section. *A. formosanus* treatment significantly increased the fetal lung/body weight ratio, as compared to dexamethasone treatment. Saturated phosphatidylcholine levels in fetal lung tissue and growth hormone levels in maternal serum were significantly increased in the *A. formosanus*- and dexamethasone-treated groups as compared to controls. The histological appearance of preterm rat lungs revealed extensive branching of intermediate airways, denser mesenchyme, and more epithelial tubules in the dexamethasone and *A. formosanus* groups as compared with the control group. These results suggest that antenatal *A. formosanus* treatment may play a role in accelerating fetal rat lung maturation.