

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

汪凌芳;鄭可大

**Chen CM;Wang LF;Cheng KT;Hsu HH;Gau B;Su B**

摘要.

## **Abstract**

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