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參加第九屆(2018 年 6 月新加坡)世界兒童重症醫學會大會心得報告

一、摘要

Pulmpnary interstital emphysema (PIE) is more frequent seen in preterm babies ventilated for respiratory distress syndrome (RDS). The treatment options are conservative treatment or surgical.The presence of PIE was associated with a significant increase mortality or bronchopulmonary dysplasia (BPD). There is no standard treatment. Most of the PIE are case report. Here, we reported fourteen preterm infants ventilated for RDS who had radiological evidence of PIE in a two year period and stress on the effect of the gentle mechanical ventilation.

Patents & Methods: We reviewed retrospectively the medical charts and chest radiograph reports of 86 preterm babies ventilated on the NICU during the two year period, Jan 2014 to Dec 2015. Three infants was excluded due to fatal congenital abnormalities (Potter's syndrome,1, and chromosomal abnomralites,2). We started gentle mechanical ventilation for the patients within 1-3 days. Collected the patients' CxR report, ventilator support days, general data, and outcome.

Results: Fourteen of eighty six very low birth weight infants developed PIE, the highest frequencies, 9/14, occurring infants weighing less than 1000gm. None of the fourteen patients went to surgical intervention nor died on PIE complication. There were four PIE patterns; focal (1 lobe involved)1 cases,unilateral (Rt or Lt lung) 5, asymmetrical(one lung severe than the other) 1, bilateral(both lung affected symmetrically) 7. PIE occurs within 10 day of life. Seven of fourteen patients associated with other air leak syndrome. Ten of fourteen patients were intubated. All PIE patients were extubated within 2-4 wks after aggressive gentle mechanical ventilation initiated within 3 days after PIE developed. Five of fourteen patients required HFOV support. Two of fourteen patients progressed into mild BPD, not required O2 or ventilator support when they went home. Definition of gentle mechanical ventilation: minimal ventilator settings (conventional mechanical ventilator) to keep PaO2 45-60 mmHg, PaCO2 60-70 mmHg as long as pH > 7.25. If patient couldn't tolerate the ventilator settings, then we switched into HFOV support.

Conclusions: The incidence of PIE in preterm infants was 16.30% (14/86), the highest frequencies occurred in extremely low birthweight infants, 64.3%, 9/14. All infants complicated with PIE could be extubated under gentle mechanical ventilation support initiated within 3 days after onset PIE. The BPD incidence was low, 14.3%, 2/14. Due to small number patients, we need large number study to test the effect of gentle mechanical ventilation on preterm infant associated with PIE.

Key word: prematurity, PIE, RDS

二、目的

新生兒間質性肺氣腫(PIE)無標準化治療,將本院兩年內治療成果介紹給其他醫師了解，並與其他醫師交流有關 PIE 治療心得,提升治療能力。

三、過程

藉由壁報參展時段和世界其他醫師交流治療心得,提升眼界與水平,並讓世界其他醫師了解我們在此醫疾病的治療水準。

三、 心得

藉由和世界其他醫師交流，知道我們水準在哪及優缺點，列如我們的病人全部拔管成功且慢性肺病變的案例很低，但是碰到失敗的案例，則只有開刀的份兒，丹麥來的醫師則提供額外的治療方法，利用特製的氣管插管加 5Frballoon catheter 就可避免開刀，讓我大開眼界。

四、 建議

請院方能盡可能鼓勵剛升任主治醫師的年輕醫師們能出果做短期或長期進修，以開擴眼界及增加能見度。