

Is antenatal corticosteroids intervention benefit for left-sided congenital diaphragmatic hernia? –A multicenter retrospectively study

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Abstract

Objective To determine the effects of antenatal corticosteroids treatment for congenital diaphragmatic hernia (CDH). **Design** A multicenter retrospectively study **Setting** Guangzhou Women and Children's Medical Center, Guangdong Women and Children Hospital, Third Affiliated Hospital of Guangzhou Medical College. **Methods** Antenatal corticosteroids treatment was administered by intramuscular injection to mothers at 32 weeks of gestation (5mg twice a day for two days) depending of the clinical course and attending physician. Patients were divided into the observe group (39 cases) and the control group (40 cases). **Main outcome measures** Primary outcome was mortality. Secondary outcome was pulmonary arterial hypertension (PAH) **Results:** 79 cases (50 male and 29 females) were enrolled at 3 center. Of note, there was no significant difference in prenatal evaluation and the severity of PAH between this two group. The mortality of this two group was 17.% and 38.5% respectively (P=0.038). Observe group was associated with a lower survival(OR=0.3,95% CI=0.1-1.0, P=0.042). After adjusting for potential confounders, prenatal corticosteroids treatment was associated with a lower survival (OR=0.7, 95% CI=0.1 to 3.8, p=0.640). **Conclusion** Antenatal corticosteroids treatment cannot improve the severity of PAH, nor improve the mortality. Instead, Antenatal corticosteroids treatment have been linked to increased mortality. Therefore, Antenatal corticosteroids treatment cannot be recommended in this data. **Funding** This study was supported by Guangdong Basic and Applied Basic Research Foundation, 2020A1515010296 **Key words** Congenital diaphragmatic hernia, prenatal corticosteroids intervention, mortality, pulmonary arterial hypertension **Tweetable abstract** Antenatal corticosteroids treatment seems cannot improve prognosis in patients with CDH.

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Figure 1. Flow diagram of study design

