IS-6  Efficacy of Protocolized Management for Congenital Diaphragmatic Hernia: A Review of 100 cases

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Purpose: To review 100 consecutive cases of congenital diaphragmatic hernia (CDH) treated at our institute focusing on the efficacy of protocolized management (PM). Methods: Of the 100 cases, 14 who became symptomatic more than 24 hours after birth, and 7 with fatal anomalies (4 cardiac and 3 chromosomal) were excluded, leaving 79 subjects for this study. Of these, 41 were diagnosed prenatally (Pre). Subjects were divided into 4 groups. Group I: No Pre, no PM (n = 34), Group II: No Pre, PM (n = 4), Group III: Pre, no PM (n = 21), and Group IV: Pre, PM (n = 20). PM includes criteria for planned delivery, use of high frequency oxygenation, nitric oxide, echocardiography (EC), and a medication schedule. Results: Overall survival rates for Groups I, II, III, and IV were 73.5% (25/34), 75% (3/4), 38.1% (8/21), and 70.0% (14/20), respectively. Survival rates were higher when PM was used: 70.8% (Groups II, IV) versus 60.0% (Groups I, III). Survival rates were significantly lower if diagnosed prenatally (Pre+): 53.7% (Groups III, IV) versus 73.7% (Groups I, II) p<.01. However, in Pre+ groups, survival was significantly higher if PM was used (p<.05). PM significantly reduced length of hospital stay (35.5 days versus 52.0 days: p<.05). EC was found to be a predictor for survival while postductal AaDO 2 was not. In 17 cases with cardiac anomalies, PM did not affect survival. Conclusions: Our study suggests that use of PM for prenatally diagnosed CDH cases is associated with improved outcome, although the components of PM need to be tested in prospective trials to determine their true value.