Panel Discussion

Panel Discussion04（ II-PD04）

Chair: Jun Muneuchi（Kyushu Hospital, Japan）
Chair: Hideaki Ueda（Kanagawa Children's Medical Center, Japan）
Sat. Jul 10, 2021 10:40 AM - 12:10 PM Track2 (Web開催会場)

[II-PD04-1]Transcatheter PDA closure in ELBW infants - What have we learned?

○Shyam Sathanandam (Pediatrics, University of Tennessee, Le Bonheur Children's Hospital, USA)

We have performed Transcatheter PDA closure (TCPC) in over 110 premature infants weighing <1000 grams. The average age and weight at the time of the procedure was 24.3 days (range: 9-50 days) and 821.4 grams (range: 540-1000 grams) respectively. The median gestational age was 24.4 weeks (range: 22-28 weeks). The procedural success rate was 100%. The major AE rate was 3%, including one procedure related mortality and two aortic arch stenosis requiring stent implantation. The minor AE rate was 3%. At latest follow-up, the survival rate was 92%. Extremely low birth weight (ELBW) infants may benefit from PDA closure within the first 4-weeks of life to prevent early onset pulmonary vascular disease, promote faster growth and for quicker weaning of ventilator and oxygen support. We use certain myocardial protection strategies that reduce hemodynamic variability during TCPC, preventing post-procedure hemodynamic compromise in ELBW infants. These strategies also blunt the transient decrease in ejection fraction encountered following TCPC and avoid post-ligation syndrome in ELBW infants. It is feasible to perform TCPC in infants weighing ≤1000 grams using currently available technologies. There is a learning curve with these interventions with most AE happening earlier in the experience. Extreme care must be taken while performing interventions in such small human beings. Further miniaturization of equipment would facilitate better outcomes.