

THYROID SUPPLEMENTATION IN PEDIATRIC CONGENITAL HEART DISEASE SURGERY

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Nowadays thyroid supplementation is still debatable in surgery of pediatric congenital heart disease. Although some studies have been performed and showing the benefit of thyroid supplementation, this treatment has not been adopted yet as a protocol for postoperative congenital heart disease. The decrease of thyroid hormone levels especially T3 after congenital heart disease surgery with cardiopulmonary bypass is known as "euthyroid sick syndrome". Although some clinicians thought that this low T3 levels has no impact on clinical outcome after surgeries, but some studies showed significant correlation of low T3 levels with bad outcome, such as low cardiac output syndrome, prolonged ventilator time and mortality. Our recent studies showed patients without T3 supplementation will have more low cardiac output syndrome, longer intubation time and higher sepsis incidence than supplemented T3 patients. The regiment of intravenous T3 is also an issued due to high cost and is not available in some countries. Research using oral T3 is a breakthrough for this problem. Oral T3 is affordable and effective in increasing T3 levels without significant side effects. The debate between supplemented or not for T3 is ongoing and need further studies to confirm the answers.

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