Postoperative Chylothorax Following Paediatric Cardiac Surgery

Istanbul Mehmet Akif Ersoy, Thoracic and Cardiovascular Surgery Center and Research Hospital, Istanbul, Turkey Department of Paediatric Cardiovascular Surgery (1), Department of Paediatric Cardiology Istanbul Mehmet Akif Ersoy, Thoracic and Cardiovascular Surgery Center and Research Hospital, Istanbul, Turkey (2)

Introduction:
Chylothorax is a rare condition that generally occurs after thoracic and cardiac procedures. The present study aims to determine the incidence, risk factors, and the impact of chylothorax on the early postoperative outcome after paediatric cardiovascular surgery.

Method:
The hospital records of all paediatric patients with postoperative chylothorax following congenital heart surgery at our institution between June 2011 and June 2014 were reviewed retrospectively.

Results:
There were 1123 cases operated during the study period. Of these, 35 cases (3.1%) were complicated by chylothorax in the postoperative period. Nineteen patients (54%) were males, while 16 (46%) were females. The most common surgery complicated by chylothorax was the single ventricle repair (11 cases, 31%). It was followed by aortic arch repairs (9 cases, 25%); Tetralogy of Fallot (4 cases, 11%); atrioventricular septal defect repairs (4 cases, 11%); arterial switch (3 cases, 8%); ventricular septal defect repairs (2 cases, 6%) and others (2 cases, 6%). Nutritional management included low lipid diet, enteral feedings enriched with medium-chain triglycerides and parenteral nutrition. Fourteen patients were treated with octreotide, 4 with thoracic duct ligation, and 3 with pleurodesis. Sepsis was observed in nine cases and three patients died.

Conclusion
Chylothorax after paediatric cardiac surgery is not a rare complication. It occurs more commonly after single ventricle repair and has a significant impact on the postoperative clinical course and morbidity.