Repair Of The Diaphragmatic Defect In Congenital Diaphragmatic Hernia With Latissimus Dorsi Muscle Flap

O Kilic Bayar*, MF Alsarraj*, AC Bakir*, ZD Akdeniz Dogan**, B Sacak***, G Kiyan*

*Marmara University School of Medicine, Department of Pediatric Surgery

**Marmara University School of Medicine, Department of Plastic and Reconstructive Surgery

***Acibadem Atasehir Hospital, Aesthetic, Plastic and Reconstructive Surgery

Background & Aim: In cases where primary repair of congenital diaphragmatic hernia (CDH) is not possible, patch repair is the first choice. Long-term thoracic asymmetric development may occur following the repair of large defects with a patch. The aim of this study is to evaluate the outcomes of patients who underwent diaphragmatic defect repair with a latissimus dorsi flap in our clinic.

Material and Methods:

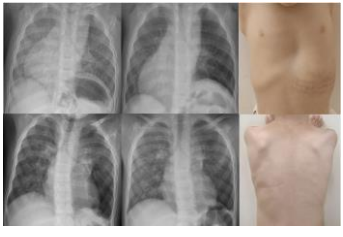
- June 2016 - July 2024, retrospective
- Demographics
- Previous operations
- Operative indications
- Surgical technique
- Early-late complications
- Clinical and radiological follow-up

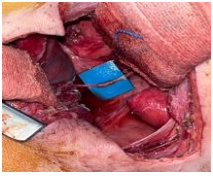
Results:

- Previous definitive surgery in external centres
- Indications of re-surgery:
  - **P_1:** Recurrent hernia after primary repair for twice
  - **P_2:** Thoracic asymmetric development
  - **P_3:** Increased risk of asymmetric development
- No recurrent hernia or flap necrosis

	Gender	Type of pathology	Previous surgery	Operation age (months)	Present patch	Recent patch	Nerve coaptation	Early complications	Follow-up time (months)
P_1	F	Right severe type D CDH	Ileostomy	18	None	None	No	None	102
P_2	M	Diaphragmatic agenesis	Nissen fundoplication, gastrostomy	26	Dual-layer patch	Vicryl patch	Yes	None	33
P_3	M	Diaphragmatic agenesis	None	18	Gore-Tex®	None	Yes	Seroma	3

Table 1: *Detailed data of patients*





Conclusion: Repair with a latissimus dorsi flap is a safe and effective option for CDA and large CDH defects. Neuroanastomosis may be beneficial in providing neo-diaphragmatic movements.