



# Pediatric Airway Surgery in Pakistan: Impact of Collaboration and Mentorship

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## Introduction

Pakistan, classified as a low middle income country, contends with the challenge of limited medical facilities, especially in the context of specialized care. The nation faces a shortage of medical subspecialties, making it difficult for patients to access advanced treatments. [1] Pakistan is a population of around 25 million people, with a GDP per capita of US\$ 1 169 and the current health expenditure is only 3% of the total GDP as of 2019. [2] Number of qualified practitioners is 1 in 1000 and likewise total number of Ent specialists is less than 1000.

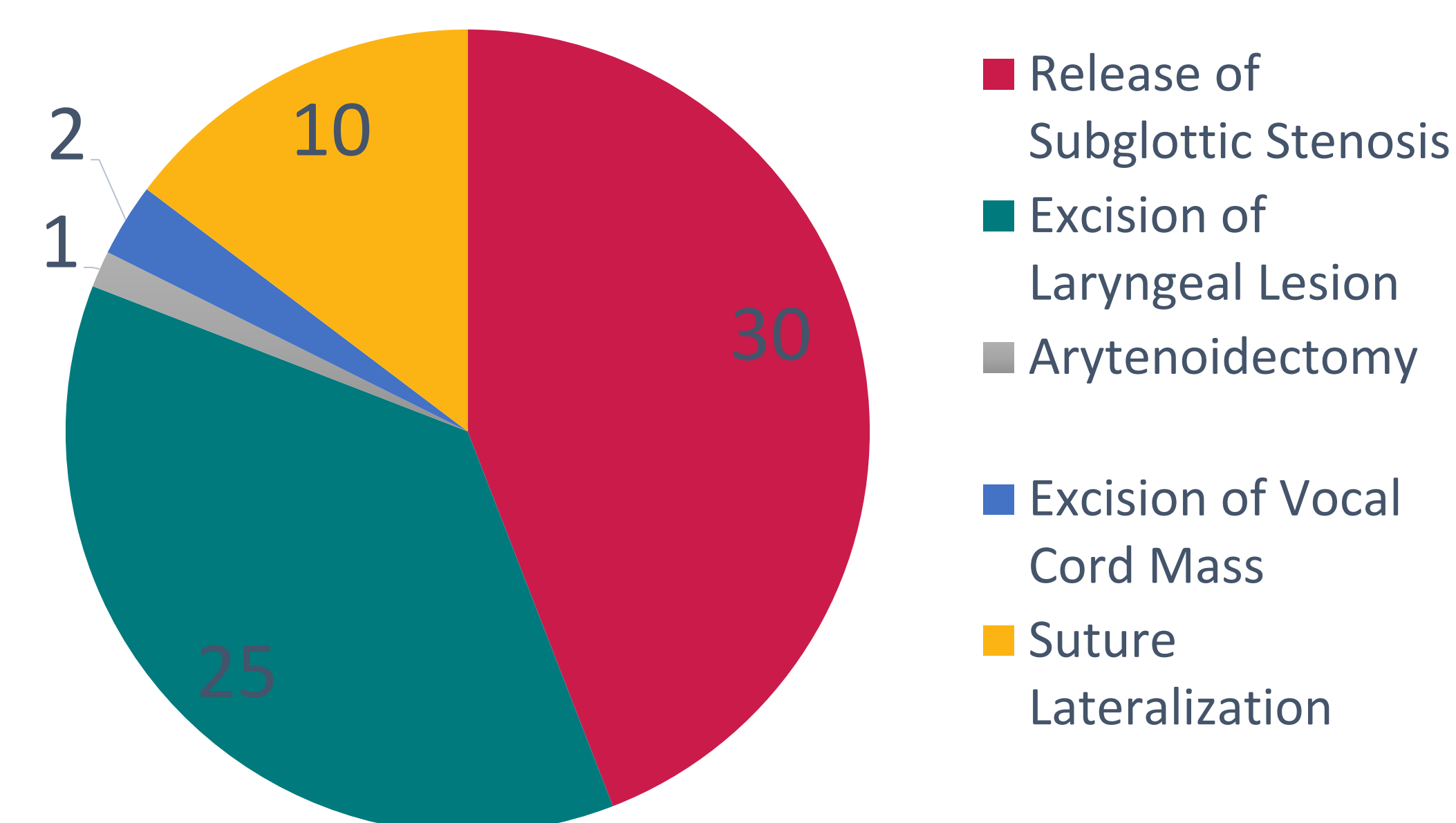
Airway surgery was lacking in the entire country till 2013 when Dr. Moghira attended a hands – on animal workshop on airway surgery and did a focused observership at Cincinnati Childrens, Ohio, USA. This led to a collaboration and First Pediatric Airway Surgery Conference was held in Pakistan in September 2018. Dr. Michael J. Rutter was the master trainer and he also performed live surgeries for capacity building of the institution.



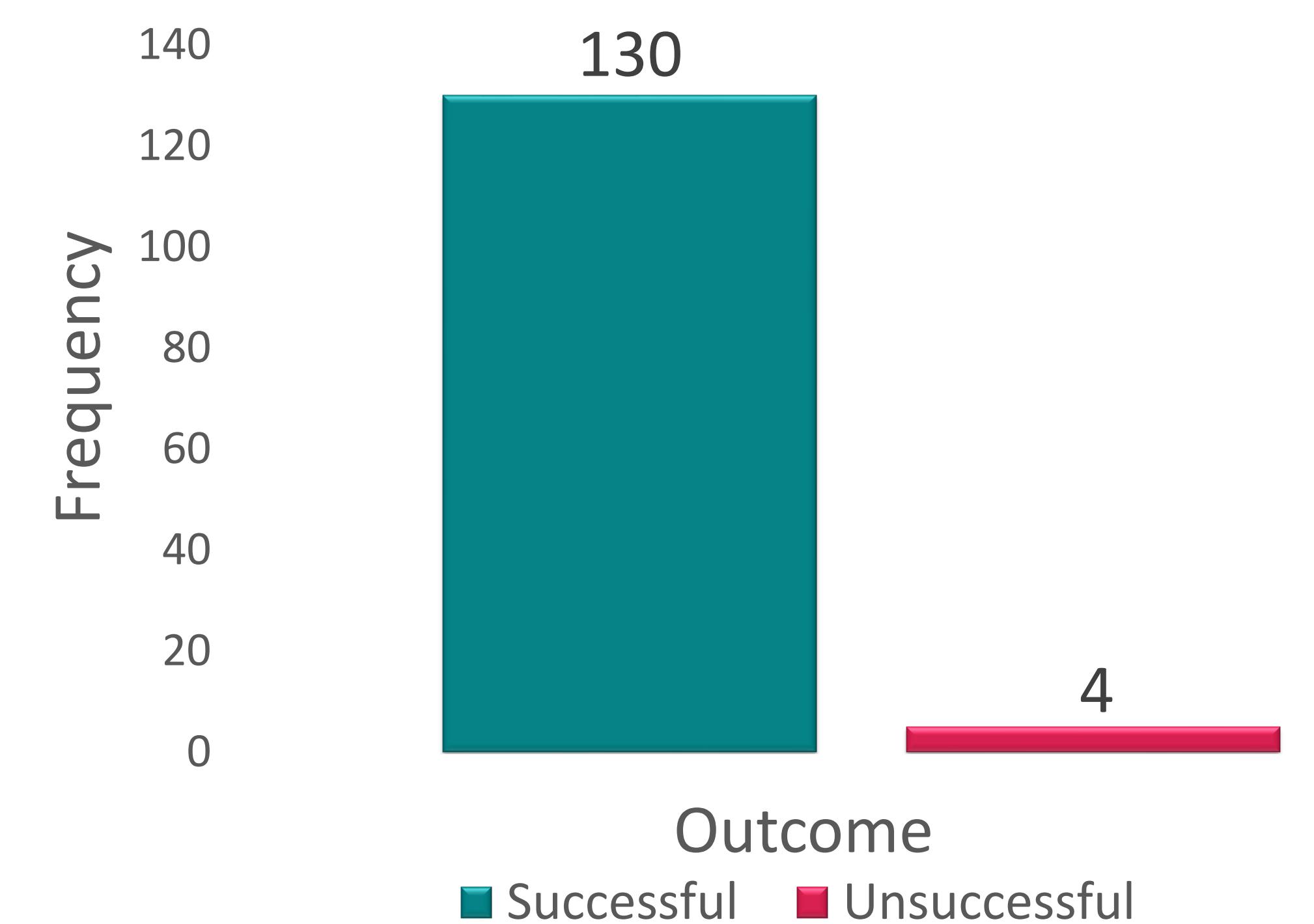
Dr. Michael J. Rutter demonstrating Slide Tracheoplasty in First Airway Surgery Conference at the Aga Khan University Pakistan, September 2018.

Procedures (2013 - present)	Number of Procedures	Age		Cotton Myers Grade of Stenosis			
		Peds (0 -21 yrs)	Adult (22+)	I	II	III	IV
Laryngotracheoplasty with costochondral grafting (LTP)	14	9	5	0	2	10	2
Cricotracheal Resection (CTR)	5	2	3	0	0	0	5
Tracheal Resection/ Slide Procedure	20	8	12	0	2	12	6
Balloon Dilatation of Airway	17	8	9	0	5	11	1
Supraglottoplasty	20	20	0	-	-	-	-
Laser Assisted Procedures	58	40	18	-	-	-	-

## Laser Assisted Procedures



## Procedural Outcome



## Conclusion

Global collaborations between medical institutions hold immense potential to transform healthcare in LMIC. By sharing expertise and resources they enable establishment of specialized programs, bridging gaps in medical services improving the quality of care accessible to the population.

## References

- [1] Khan SU, Hussain I. Inequalities in health and health-related indicators: a spatial geographic analysis of Pakistan. BMC Public Health 2020;20:1800. <https://doi.org/10.1186/s12889-020-09870-4>.  
 [2] Global Health Expenditure Database n.d. <https://apps.who.int/nha/database> (accessed September 12, 2023).