

# Sleep-disordered breathing on respiratory polygraphy in neonates with myelomeningocele

Lorine Wachsmuth, Dr. med. Christian Bieli, Dr. med. Patrice Grehten, Prof. Dr. med. Cornelia Hagmann, Prof. Dr. med. Ueli Moehrlen, PD Dr. med. Beate Grass, on behalf of the Spina Bifida Group

## Introduction:

The prevalence of SDB in children with MMC varies strongly between research centers and studies. As the Spina Bifida Center in Zurich is one of the European reference centers for fetal surgery for newborns diagnosed with MMC, we conducted a retrospective cohort study to take a closer look at this insufficiently investigated topic.

## Aim and Objective:

Determine the prevalence of SDB measured by respiratory polygraphy and its need for treatment in infants with MMC.

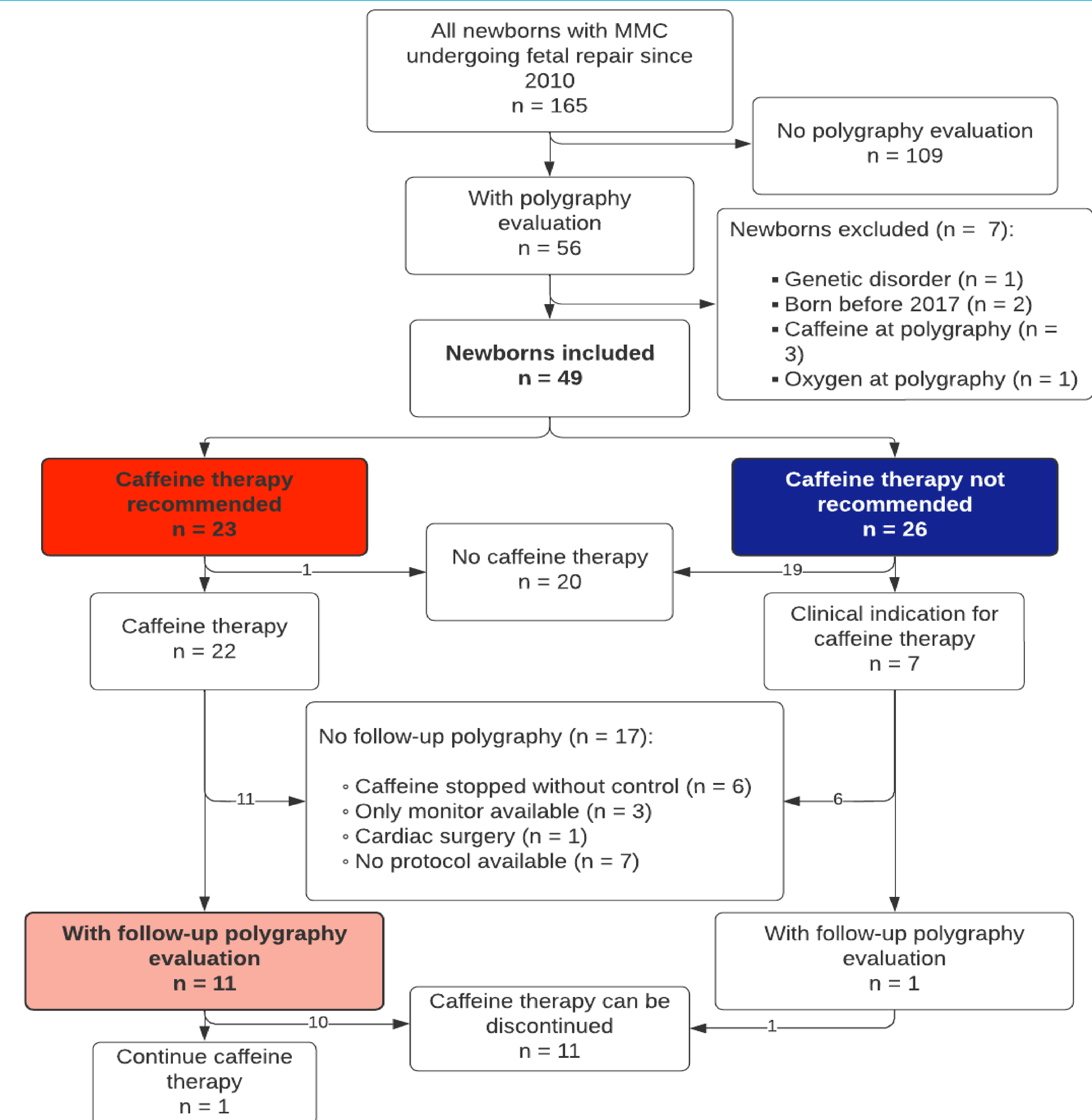


Figure 1: Flowchart of included children with MMC

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Basic Demographics (median)	Normal baseline rPG	Pathological baseline rPG	P-value
Gestational age at delivery, days	259.00 ≈ 37 weeks	256.00 ≈ 36.6 weeks	0.074
Chronological age at rPG, days	10.00	14.00	0.054
Head circumference, cm	34.45	34.50	0.733
Apgar 5min	9.00	9.00	0.578

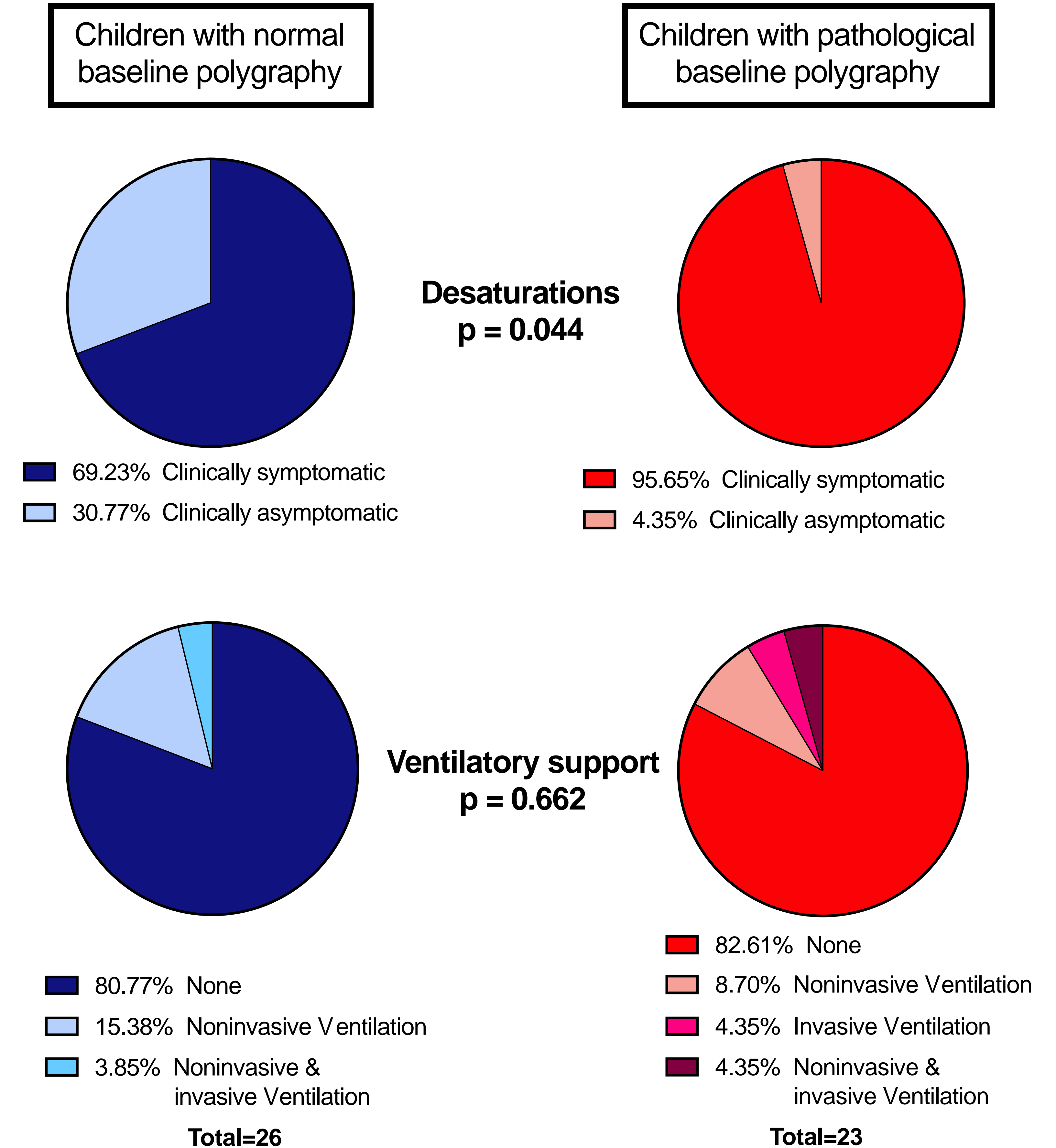


Figure 2: Basic Demographics of study population

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Figure 3:  
Baseline polygraphy results of study population by pulmonologist recommendation for caffeine therapy

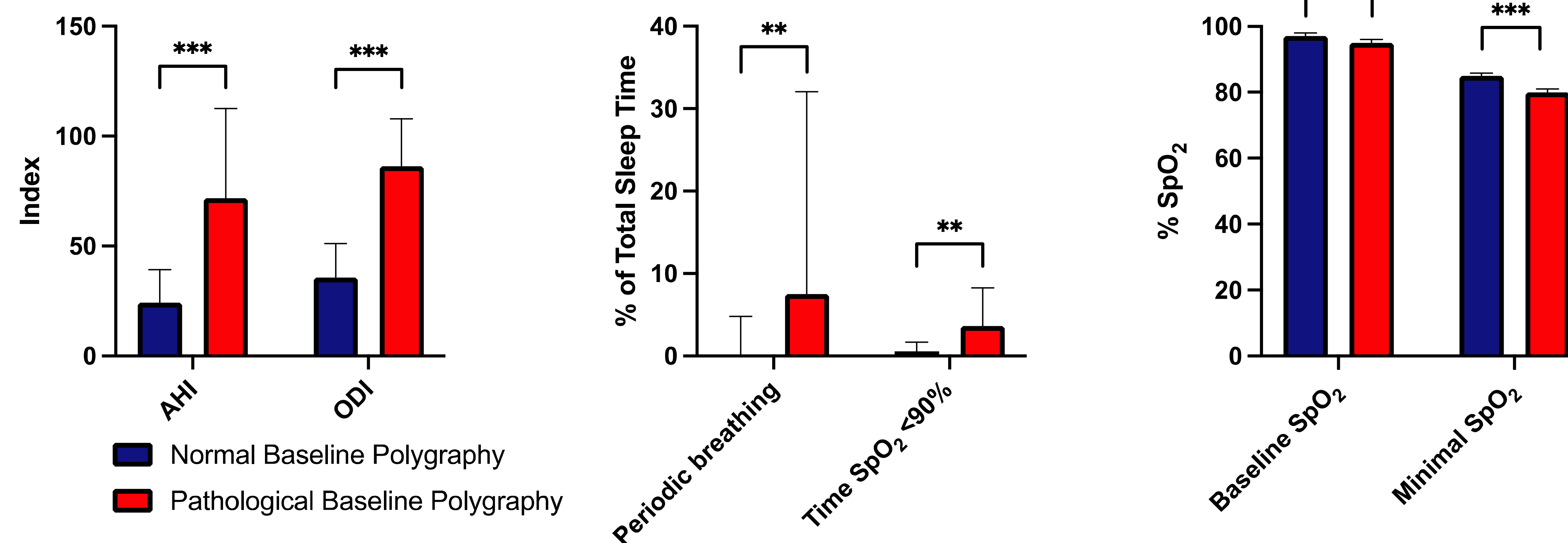
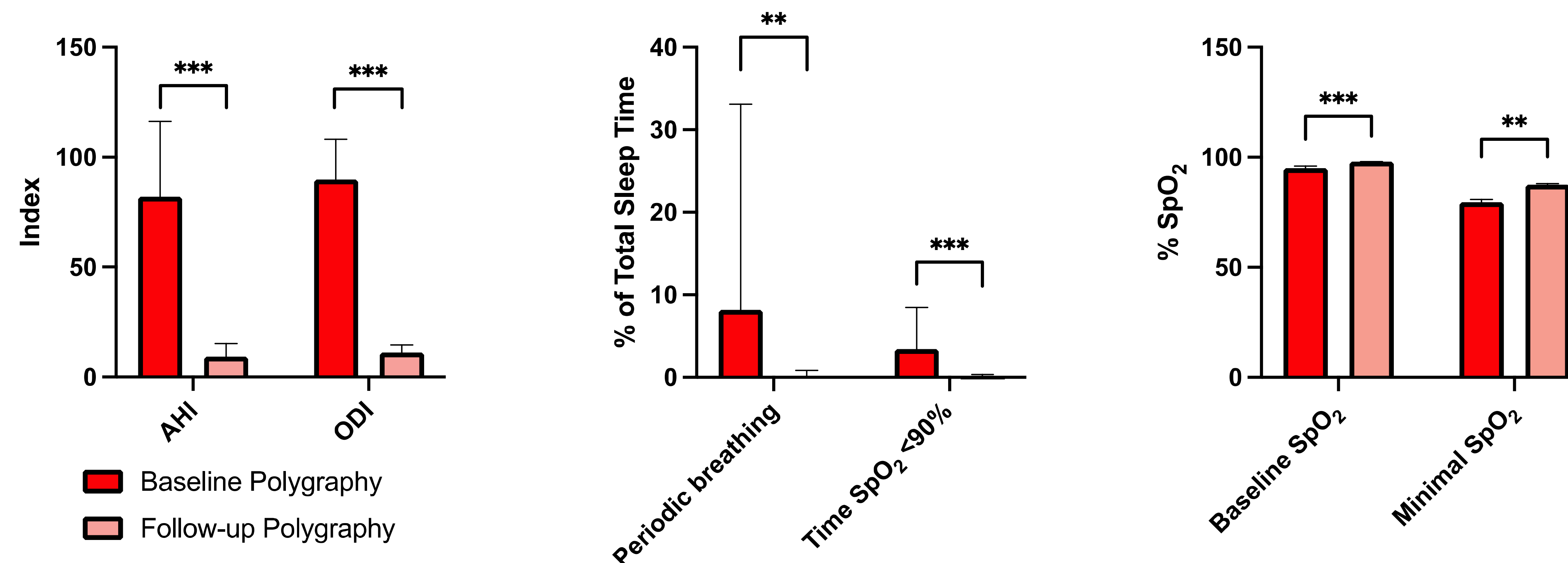


Figure 4:  
Comparison of baseline and follow-up polygraphy results of neonates with a pathological baseline polygraphy



**Conclusion:**  
Implementing routine screening respiratory polygraphy in neonates with MMC is advisable to detect SDB and facilitates appropriate treatment of SDB.

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Thank you for your attention!

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