

THE ASSOCIATIONS OF INFANT'S HEALTH CHARACTERISTICS, FEEDING PRACTICES & LACTATION MANAGEMENT WITH GROWTH AMONG INFANTS WITH STRIDOR

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Undergraduate

INTRODUCTION

- Stridor is an observable high-pitched breathing sound from partly obstructed or stenotic upper airway arising from turbulent airflow.
- Stridor leads to feeding difficulties due to incoordination of sucking, swallowing & breathing which may cause lower energy intake and lead to poor growth

*normal-appearing vocal folds (no airway obstruction)



*omega-shaped epiglottis (significant airway obstruction)



OBJECTIVE

To seek the associations of infant's health characteristics, feeding practices and lactation management with growth among infants with stridor

CONCLUSION

- 1.Stridor criteria (onset & resolved age, severity & duration) were associated with infant weight. Therefore, early determination & management are crucial!
- 2.Infants who experience difficulties during feeding tend to have growth problems in early life.
- 3.It is recommended to develop specific lactation management guidelines (for health professionals & mothers) to guide BF & prevent faltering growth.

REFERENCES

- Akerman, MJ H et al., (2004). Relationship between asthma severity and obesity. *J of Asthma*, 41(5), 521-526.
- Barkmeier-Kraemer et al., (2017). Preliminary Study of a Caregiver-based Infant & Child Feeding & Swallowing Screening Tool. *J of Pediatric Gastroent & Nutrition*, 64(6), 979-983.
- Blucher, A. E., & Darrow, D.H. (2019). Stridor in the Newborn. *Peds Clin of N. America*, 66, 475-488.
- Clark, C. M., Kugler, K., & Carr, M. M. (2018). Common causes of congenital stridor in infants. *J of the Am Academy of Physician Assistants*, 31(11), 36-40.

METHODOLOGY

Study design: Cross-sectional (with secondary medical data)
Study location (Selangor): Hospital Serdang & Hospital Ampang
Target population: Infants referred to ORL Dept. of both hospitals for stridor case, & their mothers

Data Collection:



Infant's medical records (characteristics & growth)



Interview-led questionnaire with mothers (phone calls)

= 153 mother-infant dyads

QUESTIONNAIRE / TOOLS :

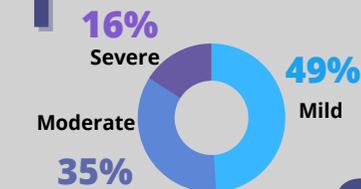
(mothers completed)

- Infant Young Child Feeding (IYCF)
- Lactation Plan, Position Modification & Pacing Techniques (Adapted LactaMap guideline)
- Infant and Child Feeding Questionnaire Breastfeeding Support (Adapted MOMStudy)

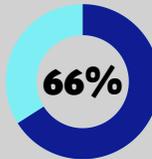


RESULTS & DISCUSSION

1 Stridor severity



2 66% of stridor onset at 1-3 months



3 Infant's birth outcomes:

Mean age: 3.14 years \pm 1.2
Birth weight (kg): 3.20 kg \pm 0.5
Birth length (cm): 48.89 cm \pm 2.4
Birth gestational week: 39.1 week

4 Associations of IVs with infant growth ($p < 0.01$):

A. STRIDOR CHARACTERISTICS

(-ve) correlation

- Age of stridor resolved ($r = -0.206$)
- Severity level ($r = -0.482$)
- Stridor duration ($r = -0.277$)

(+ve correlation)

- Age of stridor onset ($r = 0.298$)

Patients with severe disease were more likely to fail to thrive ($p = 0.002$) (Simons et al., 2016).

B. BREASTFEEDING (BF) PRACTICES

(+ve) correlation

- Duration of exclusive BF ($r = 0.317$)
- Age started infant formula ($r = 0.212$)
- Age stopped breastfeeding ($r = 0.18$)

Exclusive BF reduces the risk of infectious diseases in infancy including lower respiratory tract infections such as croup (cause of stridor) (Duijts et al., 2010).

C. LACTATION MANAGERMENTS

(-ve) correlation

- Number of BF problems ($r = -0.354$)

(+ve) correlation

- Breastfeeding satisfaction ($r = 0.293$)

The more favourable BF experience, the higher WAZ.

Consistently, feeding difficulties negatively affect feeding behaviour, including poor weight gain (LactaMap, 2020)