

the LLP after the first hour promotes GE and reduces liquid GER in the late postprandial period. In addition, liquid GER episodes were found to be more frequent in the RLP compared to the LLP. Overall the researchers found that the LLP decreases liquid reflux in the late PPH, a time frame when GE contents are most acidic.

The study conducted by Van Wijk, Benninga, Dent, Lontis, Goodchild, McCall, et al (2007) used methods of randomizing infants in a crossover fashion and employed appropriate parametric and non-parametric statistical tests, which increased the validity of their results. In addition, the same nurse was used to feed all

make use of left lateral positioning of the infant as a first step for treating GER or GER disease. In addition, left lateral positioning is an inexpensive, non-pharmacological approach that can be easily taught to parents and caregivers by medical professionals as a first step to remedying GERD. It is likely that proton pump inhibitor therapy would complement the use of the left lateral body position if further treatment is necessary.

The use of left lateral body positioning to reduce GERD should only be used for less than two hours after feeding (Omari, 2008). In addition, it is important for clinicians and caregivers to closely monitor the infant while in this position, to avoid possible complications such as sudden infant death syndrome (SIDS). The literature shows that side sleeping doubles the risk of SIDS, because of the increase risk of the infant turning to the prone position (Omari, 2008). Therefore close monitoring of the infant as well as cushion support on each side of the infant's body will help prevent the infant from moving into prone position while sleeping.

Future Research

Continued research regarding the different treatment avenues for preterm infants experiencing GERD is required to determine the most effective treatment. Of interest in Ewer, James and Tobin's study (1999) was the effect of cisapride, a medication commonly used to treat GERD in preterm infants. Ewer, James and Tobin (1999) found that the two infants receiving cisapride throughout the study period had the lowest reflux parameters. It would be interesting to determine whether certain medications used to treat GERD in preterm infants are more effective in comparison to the left lateral body position. Future research may also want to investigate whether proton pump inhibitor therapy would be beneficial in adjunct to left lateral positioning.

Future studies needs to address the following study design and methodological issues:

- Larger sample sizes in a randomized control trial to compare right lateral position with left lateral position.
- Guidelines for diagnosing GERD, such as the ones in the gold standard for diagnosing GERD in order to obtain the most reliable outcome measures.

Avoid the use of various types of formulas to eliminate variability in treatment outcomes.

Inclusion of only preterm infants with *severe* gastroesophageal reflux in order to obtain greater outcome measures.

Future research regarding the most effective treatment of GERD in preterm infants is needed in order to ensure optimal growth and development of these infants.

References

- Corvaglia, L., Rotatori, R., Ferlini, M., Aceti, A., Ancora, G., Galdella, G. (2007) The effect of body positioning on gastroesophageal reflux in premature infants: evaluation by combined impedance and pH monitoring. *The Journal of Pediatrics*, 151, 591-596.
- Ewer, A., James, M., & Tobin, J. (1999). Prone and left lateral positioning reduce gastro-oesophageal reflux in preterm infants. *Archives of Disease in Childhood: Fetal and Neonatal Edition*, 81, F201-F205.
- Federal Drug Association. (2008). FDA approves nexium for use in children ages 1-11 years. Retrieved from <http://www.fda.gov.proxy1.lib.uwo.ca:2048/bbs/topics/NEWS/2008/NEW01802.html> on November 5, 2008.
- Kazi, N., & Mobarhan, S. (1996). Enteral feeding associated gastroesophageal reflux and aspiration p479.5 1 31 03(ir)--5(a.)-4(g)6(o-7(0)-5(1)-

- Quinn, F., & Ryan, M. (2005). Grand rounds presentation, UTMB department of otolaryngology. GERD and aspiration in the child: diagnosis and treatment. Retrieved from www.utmb.edu/otoref/Grnds/Reflux-Aspiration-050223/GERD-pedi-050223.doc on November 5, 2008
- Tobin, J., McCloud, P., Cameron, D. (1997). Posture and gastro-oesophageal reflux: a case for left lateral positioning. *Archives of Disease in Childhood*, 76, 254-258.
- Van Wijk, M., Benninga, M., Dent, J., Lontis, R., Goodchild, L., McCall, L., et al. (2007). Effect of body position changes on postprandial gastroesophageal reflux and gastric emptying in the healthy preterm neonate. *The Journal of Pediatrics*, 151, 585-590.

