



Antibiotics use and worse outcome: A possibility of misinterpretation

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DEAR EDITOR,

Premature preterm birth (PPB) is still a biggest challenge not only for obstetricians but also for pediatricians, because it dramatically increases the perinatal morbidity and mortality and also results in a heavy economic-social burden.¹⁻³ Therefore, any information addressing the care of PPB-related premature preterm infants, especially for those with very low birth weight (VLBW) is welcome. We have read an article published in the September issue of the *Journal of the Chinese Medical Association* with interest.⁴ The authors found that inappropriate use of antibiotics may be associated with an increased risk of necrotizing enterocolitis (NEC) or bronchopulmonary dysplasia (BPD).⁴

The authors attempted to explore the role of the using antibiotics, and the impact of antibiotic exposure duration on the occurrence of NEC and BPD.⁴ However, we found that the enrolled subjects were different in theory. Based on their description, the use of antibiotics included a combination of ampicillin and cefotaxime and a combination of teicoplanin and meropenem.³ The authors have explained that the different regimen was based on the different clinical presentation (infants with supposed early-onset sepsis and infant with ill-appearing clinical presentation). It implied that the study group consisting of some infants treated with empirical antibiotics and some infants treated with disease-related antibiotics. Moreover, we did not know what percentage of these two different groups of infants accounts for. Like cancer treatment, we would like to explore the role of adjuvant therapy on the outcome of the patients. If we put all stage of patients into analysis, the results may lead to misinterpretation. Since stage is the most

important and independent prognostic factors, regardless of use of adjuvant therapy. For example, all the stage I patients do not need adjuvant therapy, but the outcome is good.⁵ By contrast, stage IV patients have worst outcomes compared to the stage I patients, even though they are rescued by the adjuvant therapy. If the stage IV patients are the main components of our proposed study, we think that results may demonstrate a positive correlation between adjuvant therapy and worse outcome,⁶ but is it real? We hope to see the kind response by authors.

REFERENCES

1. Lee WL, Chang WH, Wang PH. Risk factors associated with preterm premature rupture of membranes (PPROM). *Taiwan J Obstet Gynecol* 2021;60:805-6.
2. Huang LT, Chou HC, Chen CM. TRIM72 mediates lung epithelial cell death upon hyperoxia exposure. *J Chin Med Assoc* 2021;84:79-86.
3. Jan Mohamed HJ, Lim PY, Loy SL, Chang KH, Abdullah AFL. Temporal association of maternal weight gain with early-term and preterm birth and low birth weight babies. *J Chin Med Assoc* 2021;84:722-7.
4. Chen WY, Lo YC, Huang PH, Chen YX, Tsao PC, Lee YS, et al. Increased antibiotic exposure in early life is associated with adverse outcomes in very low birth weight infants. *J Chin Med Assoc* 2022;85:939-43.
5. Yang ST, Liu CH, Wang PH. No impact of tumor size on oncological outcomes in cervical cancer patients after radical hysterectomy and postoperative radiotherapy: Is it real? *Taiwan J Obstet Gynecol* 2022;61:575-7.
6. Yang ST, Wang PH. Abandon ifosfamide-based regimen and use paclitaxel-carboplatin regimen for the treatment of uterine carcinosarcoma. *J Chin Med Assoc* 2022;85:649-50.

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