



Gestation-wise Reference Ranges of Neutrophil Counts in Indian Newborns

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Dear Editor,

In March 2019 issue of the *Oman Medical Journal*, Das et al,¹ conducted total leukocyte counts, differential counts (lymphocytes and neutrophils), and peripheral blood smear examination in healthy Indian newborns of both sexes, aged 30 to 41 weeks gestation. They found a clustering of neutrophil count values below 8000 cells/ μ L on day three and below 5000 cells/ μ L on day five with no gender-based differences in counts. They ultimately formulated reference range curves for neutrophil counts as per gestational age.¹ I assume that the utility of the generated reference curves in the clinical field and researches ought to be cautiously taken. The authors addressed few study limitations, namely the small sample size, use of hospital-based data, and the lack of serial neutrophil counts from day one to seven.¹ I think that these methodological limitations might cast additional suspicions on the accuracy of the study results. Anecdotal studies have shown that ethnicity is an important determinant in constructing blood cell reference intervals per gestational age, and it should be taken into consideration in populations with different ethnic backgrounds to evaluate the

patients' health states better.^{2,3} Actually, reference values of blood cell elements have been constructed in certain multiethnic populations.^{4,5} The population in India is a peculiar amalgamation of different ethnicities. The authors did not address the exact ethnic standards of the studied population. Hence, I assume that formulating gender and ethnicity-specific gestation-wise reference ranges of neutrophil counts were envisaged to better evaluate sepsis in the Indian neonatal clinical setting.

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