



The development of a post-mortem interval estimation for human remains found on land in the Netherlands, yet some facts need further exploration

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Dear Editor,

We would like to congratulate the authors for an informative article titled “The development of a post-mortem interval estimation for human remains found on land in the Netherlands” [1]. The authors have developed a decomposition scoring method and have derived a formula to estimate the PMI (post-mortem interval) by using the developed decomposition scoring method and the ADD (accumulated degree days). A conclusion has been drawn, that the developed decomposition scoring method is a practical method to measure decomposition for human remains found on land and thus the PMI can be estimated using this method in the climate similar to the study place. We, however, have certain reservations on the methodology followed and conclusions drawn in the study that need to be elaborated for a better understanding of this significant research.

The authors had highlighted various factors affecting decomposition of the body hence affecting the estimation of post-mortem interval accurately. The underlying cause of death could be an important factor which affects the process of decomposition especially in deaths related to poisoning. It is a common knowledge that certain poisons tend to speed up or retard the process of decomposition. Additionally, mention of the cause of death in the study cases and their categorization into different groups for analysis would have made this study more authentic. The authors had categorized cases into indoor and outdoor cases. Outdoor temperature is taken from the

meteorological center, but for indoor cases, the average temperature was taken for all cases. Previous studies had reported the fact that temperature is the single most crucial factor affecting the process of decomposition. If the actual indoor temperature was taken, the result would be more reliable. In case the actual indoor temperature was not available, then different indoor temperatures during different seasons based on the time of death would have been appreciable. The authors provided Book of reference to the three groups of participants’ namely forensic physician, forensic scientist, and medical students for validation purpose. The participants were allowed to see this Book of reference only before validation of scoring. We think that during validation had the participants allowed to observe Book of reference simultaneously the result could have better. We do not see any harm in this protocol as simultaneous observation of the reference book and actual photographs would certainly minimize the memory bias. There was an unequal distribution of male-female cases, while body fat content and lean body mass are known factors affecting the process of decomposition. The authors could have developed a separate formula for both male and female.

Our correspondence thus emphasizes the appropriate statistically derived sample size and accurate temperature recording. The inclusion of temperature in total decomposition score and other factors affecting the process of decomposition in the PMI estimation can provide more accurate results.

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