

Comment on: Comparison of Serum Zinc and Copper Concentrations in Females with Ovarian and Uterine Tumors

Dear Editor,

In October–December 2024 issue of the *Journal of Medical Physics*, Adhab *et al.*^[1] studied the serum levels of Zinc (Zn) and Copper (Cu) among Iraqi women with malignant and benign ovarian and uterine tumors. They found that lower serum Zn levels with increasing serum Cu levels might be linked directly to a greater risk of malignant uterine tumors while lower serum Cu levels with increasing serum Zn levels might be linked causally to a greater incidence of patients with malignant ovarian tumors. Moreover, these trace elements could differentiate between malignant and benign ovarian and uterine tumors. Despite the promising study results, we believe that the following limitation might impede the implementation of the study findings in research and clinical setups. The receiver operating characteristic (ROC) analysis is a high-powered instrument for evaluating the accomplishment of a given index test to diagnose a particular condition or disease. The area under ROC (AUROC) value is a summarized metric of the ROC curve which discloses the test's capability to differentiate between nondiseased and diseased individuals. The ROC analysis could additionally be employed to define the optimal cutoff (COV) value, a value that maximizes an index test's specificity and sensitivity. To soundly use the trace elements of Zn and Cu in differentiating malignant and benign tumors of the uterus and ovaries, predicting the progression of one tumor nature to another one, and institution of effective therapy, there is a necessity to refer to the predicted COV measured by plotting the ROC curve and calculating the AUROC.^[2,3] Regrettably, Adhab *et al.*^[1] made no attempt to plot the ROC and compute the AUROC for the trace elements under the study.

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Conflicts of interest

There are no conflicts of interest.

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