

Reviewer 1 v.1

Comments to the Author

The authors describe the metabolism mechanism of neutrophil predominant pleural effusions using coefficient of energy balance (lactate and glucose). This was compared to Light's criteria with a new criteria for exudate (glucose, lactate, LDH, tProt). Neutrophilic effusions had a lower KEB as well as a higher LDH and neutrophil %. However the authors do not demonstrate that KEB is any different than the conventional exudate criteria or simply a cell count/differential. This especially matters since a purulent complication of surgery has a surprisingly normal KEB compared to chest infections. Post surgery with purulent complication would warrant the use of antibiotics so it is best if there is a stronger discriminator. It would be useful to chart an ROC curve with KEB, LDH and glucose so see which has the best AUC.

It is also good to have more physiologic information about pleural effusions and I believe the study would be strengthened with more robust statistical analysis (treat this as analysis of a new diagnostic tool).