Workshop Title: What to do when I don't have a diagnosis?

It is very important to make a correct diagnose of acid base disorders, because they can be fatal, they are of limited etiologies and most of these etiologies are correctable. Basically, there are four types of acid base disorder, namely metabolic acidosis, metabolic alkalosis, respiratory acidosis and respiratory alkalosis. There is high anion gap metabolic acidosis and non anion gap metabolic acidosis (hyperchloremic metabolic acidosis). The anion gap is defined as the difference between, the major cation (Sodium) and the major anions (chloride and bicarbonate). The anion gap results because there are anions such as sulfate, phosphate, organic anions and especially the weak acid proteins that are not measured on the routine chemistry panel whereas there are very few unmeasured cations. Albumin is responsible for up to 50% of the serum anion gap. Hypoalbuminemia, common in critically ill patients will spuriously lower the anion gap and mask an underlying anion gap acidosis. Therefore, serum albumin should always be measured as part of the assessment of an acid-base disorder. For every 1 gram decrease in serum albumin below 4 g/dl, the serum anion gap should be corrected up by 2.5-3.0 mEq/L. Normal pH is 7.38-7.42; pH>7.42 will be alkalosis, pH<7.38 will be acidosis, PaCO2>40 mmHg (respiratory acidosis), PaCO2<40 mmHg (respiratory alkalosis), bicarbonate>24 meq (metabolic alkalosis) and bicarbonate<24 meq (metabolic acidosis). We will be discussing 12 scenarios in order to understand it better in the workshop.

Biography

Seemin Afshan Shiraz has completed her MRC, UK in 2007 and then European Diploma in Critical Care in 2009. She has extensive experience in Internal Medicine and Critical Care. She has been involved in teaching of medical students at University of Sharjah along with the training and teaching of postgraduate students of family medicines, internal medicine and critical care medicine. Currently, she is working as an in-charge of a Critical Care Facility in Dubai, UAE.

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