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EDITORIAL

Cholesterol as an inflammatory marker: cheap but valuable?

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During the last decades, there has been an ongoing search for the ideal marker of inflammation and infection; one that is fast, accurate and that can be determined at low cost, aiding well-judged and prompt treatment of patients suffering from an infection. The most commonly used commercially available laboratory tests for this purpose, haemocytometry, C-reactive protein and procalcitonin,1 all have their distinct drawbacks. With the rising incidence in antibiotic resistance, the development of a marker that would differentiate between inflammation and infection would make a much wanted more restrictive and targeted use of antibiotics possible. However, to be realistic, a marker with a specificity high enough to withhold antibiotic therapy in critically ill patients admitted to the ICU is unlikely to exist. For this reason, other indications to determine biomarkers were sought after and found, for example procalcitonin-guided termination of treatment of antibiotics. Several studies indicate that a shorter treatment duration is feasible, without clear indications of clinical risks of under-treatment so far. So, this seems to be an effective and safe strategy to reduce the duration of antimicrobial therapy in intensive care patients with severe sepsis.2 Such a study has also been initiated in the Netherlands (the SAPS trial) and the results are eagerly awaited.

Elsewhere in this journal, Kreeftenberg et al. describe a few cases in which measurement of a change in total cholesterol serves as a cheap alternative indicator for a change in overall clinical condition.3 The correlation between lower cholesterol levels and an increase in mortality in patients with infection has been known for several years,4-7 although a large and well-designed study for the use of cholesterol as a guide for treating septic patients has never been conducted. In view of the previously discussed procalcitonin-guided termination of antibiotic therapy, measurement of cholesterol levels could potentially be used as a cheaper, but still valuable substitute for procalcitonin in this matter. Clearly, direct comparison between the predictive value of changes in cholesterol and other biomarkers are needed and this should be feasible with the collected samples in studies that have already been performed.

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