Short Communication

iMedPub Journals
www.imedpub.com

Journal of Preventive Medicine
ISSN 2572-5483

2021
Vol.6 No.5:91

DOI: 10.36648/2572-5483.6.5.91

Role of Procalcitonin in Patients with Sepsis

Vijay Kumar*

Department of General Medicine, Bharath University, Chennai, India

Keywords: Sepsis; Infection

Received: May 14, 2021, **Accepted:** May 25, 2021, **Published:** May 31, 2021

***Corresponding author:**
Vijay Kumar

Department of General Medicine, Bharath University, Chennai, India

vijaykumar@gmail.com

Citation: Kumar V (2021) Role of Procalcitonin in Patients with Sepsis. J Prev Med Vol. 6 Iss No.5: 91

Short Communication

Sepsis corresponds to a state of multiorgan dysfunction secondary to an exaggerated response to infectious processes. Although it is true, its definition is based on the suspicion clinical or microbiological confirmation of an active infection associated with a SOFA score greater than or equal to 2; exist biomarkers that allow us to approach the diagnosis of timely manner in difficult-to-approach patients; within which stands out procalcitonin (PCT) as a mainstay, having take into account its high effectiveness evidenced in the different studies.

Procalcitone (PCT) is a protein synthesized by cells C of the thyroid gland, composed of 116 amino acids, with an estimated molecular weight of 13kDa; having as precursor to preprocalcitonin. Its production is mediated by the presence of molecular patterns associated with pathogens (PAMPs). During sepsis, the major producers of PCT are macrophages and monocytes. For proper decision-making based on the use of PCT, it is necessary to know that its generic levels normally <0.5 ng/ml are found. During post-surgical states, liver or kidney failure, burns, or procedures invasive, these levels may increase, but rarely above 2 ng/ml. It is also possible to find this in elderly patients.

At present, the practice of medicine is directed to reduce the indiscriminate use of antibiotic therapy; better selecting patients who actually benefit from it, applying the principles of pharmacokinetics and pharmacodynamics for choosing the appropriate drug and using short courses of antibiotics when possible, as is the case of community-acquired pneumonia or infections of uncomplicated urinary tract. All this, in order to avoid the increased resistance mechanisms expressed by bacteria Taking the above, strategies have been generated that optimize decision-making, such as serial making of PCT to suspend antibiotic treatment after normalization of serum levels or an approximate decrease 80% compared to the previous.

In a systematic review, including 10 randomized trials, 1215 patients, procalcitonin levels were used to guide antibiotic treatment. In this a decrease was found statistically significant length of hospital stay and duration of antimicrobial therapy, showing no differences significant in in-hospital mortality, in the unit of intensive care, or 28-day follow-up.

The reasonable use of biomarkers in the patient with sepsis, indisputably has a utility that goes beyond assist diagnosis. It allows directing a work plan and achieving decrease the inappropriate use of ntibiotic therapy, hence monitoring of these in selected patients should be as important as the administration of antibiotic treatment empirical and early fluid resuscitation.

