Tricuspid valve excision without insertion of prosthesis has been used to control infection. This technique has never been used in our hospital. Our preference has been to repair the valve whenever possible. If valve replacement is required we prefer a biological prosthesis.

References


* Corresponding author. Address: Klinik für Herz- und Gefäßchirurgie, Deutsches Herzzentrum, Klinik an der Technischen Universität München, Lazarettstraße 36, D-80636 München, Germany. Tel.: +49 89 1218 4111; fax: +49 89 1218 4123.

E-mail address: Guenther@dhm.mhn.de (T. Guenther).


Letter to the Editor

Are procalcitonin levels sufficient for the follow up of patients undergoing lung decortication for pleural empyema?

Efstratios E. Apostolakis*, Christos Prokakis, Dimitrios Dougenis
Cardiothoracic Surgery Department, Patras University, School of Medicine, 14 Zaimi Street, 26500, Rion Patras, Greece

Received 11 August 2008; accepted 21 October 2008

Keywords: Pleural empyema; Inflammation; Procalcitonin; C-reactive protein; Lung decortication

We have read with interest the comparative study on the role of procalcitonin (PCT) and C-reactive protein (CrP) in the monitoring of the postoperative course after decortication for pleural empyema [1]. Nevertheless some issues should be pointed out: (A) the small number of patients in each subgroup impacts on the validity of the results, especially as far as postoperative complications concerns. (B) The preoperative values of PCT were lower than the ones in the first postoperative day and even lower than those measured at the second day after lung decortication. This does not seem coherent to the comment that ‘In pleural empyema elevated CrP and PCT value is expected to increase preoperatively because of the infection. But after the removal of the damaged and infectious tissue both the CrP and PCT values should decrease rapidly’. A possible explanation for the increasing values of both CrP and PCT in the days following lung decortication could be the release of endotoxins and ‘inflammation spreading’ during surgery. Indeed it is known that endotoxin administration is associated with a dramatic increase of PCT levels after 3 to 4 h, reaching its peak after 24 h followed by a return to normal levels a few days later [2]. Furthermore, how do you explain the fact that one of your patients who developed postoperative recurrent pleural effusions with persisting high levels of PCT also presented low PCT preoperatively? Our major concern is that the variation of PCT levels could be related to other perioperative factors rather than the decortications itself. Patients undergoing cardiac procedures present perioperative variation of PCT levels similar to the ones in this study [3,4]. The use of CPB, a known factor promoting systemic inflammation, does not seem to have an impact on the pattern of increase of PCT levels in the postoperative period [4]. At this point it should be mentioned that a known trigger for PCT production is the release of cytokines in response to tissue injury associated with every surgical procedure [5]. (C) One of the reported criteria for the definition of empyema and patient inclusion in the study was the detection of bacteria in pleural effusion while an exclusion criterion was the presence of tuberculosis. However this succeeded in only 31.8% of the patients. How did you exclude the possibility of false negative culture for tuberculosis among the patients with negative cultures, and if there were such patients how do you explain the decrease of PTC levels in all patients in the postoperative period even though tuberculosis is related to persisting inflammation not controlled by lung decortication? (D) The decision for continuing antibiotic therapy after discharge was based on CrP values since all PCT values were not available during hospitalization as you stated. Would an earlier availability of these values have an impact on the decision to proceed with antibiotics after patient discharge? In our opinion further randomized trials with larger study groups are necessary to clarify the role of PCT as a measure to monitor the outcome after surgical management of infectious and septic conditions.

References


* Corresponding author. Tel.: +30 2610 999779/999847; fax: +30 2610 994535.

E-mail address: stratiasapostolakis@yahoo.gr (E.E. Apostolakis).

doi:10.1016/j.ejcts.2008.10.019