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CORRESPONDENCE

DHEA as marker of good surgical homeostasis

DHEA, marqueur d'une homéostasie chirurgicale favorable

Dear Sir,

We read with great interest the article produced by Le Roy et al. on the importance related to the role of pre-habilitation across the surgical experience and surgical candidates [1].

According to recent literatures, restorations of normal vegetative functions reduce the operative risks and facilitates the postoperative recovery [2]. This implies the need of a medical assessment related to the functioning of each system. Taking into consideration digestive surgery, the following parameters such as metabolic parameters, latent infectious conditions and/or immunological secondary activation need to be further analyzed. A preoperative general evaluation can rarely investigate all the different variables.

In view of this, we would like to present some preliminary conclusions: we focused our attention to the DHEA (dehydroepiandrosterone) serum concentration, a metabolite of cortisol which is strictly correlated to the corticoadrenal function.

In a first group of 50 patients aged between 45 and 70 years, both sex, classified as ASA 2 and candidate to an open or laparoscopic abdominal digestive major surgery due to a digestive pathology, we observed that a normal DHEA serum concentration directly excluded a corticoadrenal malfunction and corresponded to a condition of normality of other more common parameters. Furthermore, we suggest to consider DHEA as biomarker for a good general homeostasis: its normal value may exclude abnormal clinical conditions, such as infection, hypovolemia, catabolic state, advanced neoplastic diseases, and/or immunological dys-regulations.

Our finding is that in 42 cases of uneventful postoperative recovery, the DHEA serum level remained at a normal range. On the contrary, this marker abnormally increased in 5 cases of infectious complications and in 3 cases of cardiorespiratory adverse events.

In a single marker, it is not possible to identify all the metabolic, circulatory and immunological variables that should be evaluated in the preoperative study or monitored during the postoperative period of surgical patients. Nevertheless, we tend to consider that the serum DHEA concentration can represent a valuable indicator of an "equilibrated" metabolic condition, of a good peripheral circulation and tissue oxygenation, which also indicate as unlikely the onset of an acute infection [3,4].

Clearly, additional clinical experiences and studies are necessary on this subject.

Disclosure of interest

The authors declare that they have no competing interest.

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