Can we predict disease?

"*The shortest distance between two points is not a straight line.*"
Albert Einstein

Dear Editor,

I read with great interest the article by Sá et al. [1]: "Validation of MagedanzSCORE as a predictor of mediastinitis after coronary artery bypass graft surgery", published in Revista Brasileira de Cirurgia Cardiovascular. 2011, 26 (3) :386-92. The subject itself is very relevant, but some considerations are relevant.

I quote Escrivão Jr. [2]: *"It also grows the demand for health services, both private and public, organize yourselves to respond to people's needs and offer a humane and effective care, providing all information the user needs. "* And I also quote Dobrow et al. [3]: *"... they suggest that it is necessary to distinguish between the "impact of the evidence" in the results of organizations and simple " use of evidence" in the decision-making process."*

The main topic would be: Can we predict disease? If we can, who should we share these information with? This topic and these doubts I also had when I described a case report using EuroSCORE (1999) for the assessment of operative risk and Fowler et al. score (2005) on risk analysis for mediastinitis [4]. In this case study, the use of two scales did not show power to predict preoperatively the surgical problems that followed postoperatively.

If the accuracy of data collected to detect serious complications such as mediastinitis enter into our practice of routine assessment, which would be the ideal time for this introduction to the patient? During pre-operative? In post-operative? And, most importantly in this age of information, should the patient know that he has high risk for developing postoperative infection (a surgical complication?), Even with low preoperative risk?

I agree with Turpin et al. [5] that performance indicators are not direct measures of quality but *"...flags to alert users to possible opportunities for improvement in processes and outcomes"*.

Given these uncertainties, I agree with Vallet et al. [6]: *Ces publications ne sont compréhensibles que par un public de professionnels avertis qui dénonce massivement les exploitations des données telles qu'elles sont faites et les carences méthodologiques de la presse grand public"*.

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An overview of basic research articles recently published by Clinics

Introduction

This is an insight on articles on basic research recently published by Clinics with direct or indirect interest to the cardiopulmonary system. We believe they may be of interest to readers of Revista Brasileira de Cirurgia Cardiovascular.

Cardiovascular

The most cited article of this collection describes the effects of hypertension time course in spontaneously hypertensive rats. Spontaneously hypertensive rats develop left ventricular hypertrophy, increased blood pressure and blood pressure variability, which are important determinants of heart damage, like the activation of renin-angiotensin system. Zamo et al. [1] investigated the effects of the time-course of hypertension over 1) hemodynamic and autonomic patterns (blood pressure; blood pressure variability; heart rate); 2) left ventricular hypertrophy; and 3) local and systemic Renin-angiotensin system of the spontaneously hypertensive rats. They observed that autonomic dysfunction and modulation of Renin-angiotensin system activity are contributing factors to end-organ damage in hypertension and could be interacting. Our findings suggest that the management of hypertensive disease must start before blood pressure reaches the highest stable levels and the consequent established end-organ damage is reached.