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**Is congenital tricuspid insufficiency (CTI) as rare as it seems to be?**

Andrew C. Chatzis, Nicolas M. Giannopoulos and George E. Sarris

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## Reply to the Letter to the Editor

## Reply to von Heymann et al.

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**Keywords:** Heparin; ACT; Cardiopulmonary bypass; Blood loss; Activation; Coagulation

I would like to thank Dr von Heymann [1] and colleagues for this interesting interaction.

Let me start by confirming to Dr von Heymann the following

1. Pre operative coagulation assessment were done and patients on anticoagulation or abnormal results were excluded from the study.
2. We did take into consideration Gibbs [2] paper. This is one of the reasons why we continue with aspirin till the day of the operation in all patients. Gibbs paper confirms the universal inhibition of platelet function by aspirin. And since Aspirin inhibition to platelet function is irreversible, the individual variability in platelet function reflects the rate of regaining function by producing new platelets.
3. The other aim of inhibiting platelet is to cancel out their contribution to the activation of neutrophils and hence a beneficial effect on the inflammatory response.
4. There is no strong evidence [3] today to suggest that a decrease in anti thrombin III levels will translate into a decrease in soluble Fibrin level which is the end point of the clotting cascade and have the real effect in haemostasis.
5. The results from Despotis [4] paper can not be compared with ours, his population is smaller and different (re-operations vs. primary CABG).

All in all this is a large study which we set out to exclude most of the confounding variables rather than trying to give plausible explanations. Activated Clotting Time measurement is still in use by the majority despite its critics. The clotting cascade remains a complex multi-factorial system that we have yet to elucidate comprehensively. ACT is a simple test and a good indicator of the haemostatic system. What we tried to say was simple, can we use less heparin to achieve the same target ACT. We proved that we can. Whether our observation; of less post operative blood loss; is only due to less heparin. That has to be teased out further.

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## Letter to the Editor

## Is congenital tricuspid insufficiency (CTI) as rare as it seems to be?

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**Keywords:** Congenital; Tricuspid insufficiency; Absent pericardium

We read with interest the report of severe tricuspid insufficiency in a case of partial absence of the left pericardium presented by Goetz et al. [1]. We have recently reported a rare similar case of a 37-year-old male yet with absence of the right pericardium [2]. In spite the fact that right pericardial defects do not affect cardiac position in any way, our patient had severe tricuspid regurgitation which we felt was congenital tricuspid insufficiency (CTI) due not only to significant annular dilatation (a chief feature of CTI), but also to dysplastic, deficient leaflet tissue [3-5].

In the case reported by Goetz et al. [1], the leaflets appeared normal and disruption of the valve was attributed to heart displacement and stretching alone. However, we believe that one should also consider the contribution of a congenital element to the dilatation of the tricuspid annulus, unrelated to cardiac displacement.

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## Reply to the Letter to the Editor

### Reply to Chatzis et al.

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**Keywords:** Absent pericardium; Congenital; Tricuspid insufficiency

Thank you for your Letter to the Editor [1] regarding our report 'Tricuspid valve repair in a case with congenital absence of left thoracic pericardium'. We appreciate your comments and agree that congenital elements in partial and complete absence of pericardium must be considered. Associated anomalies including mitral stenosis, atrial septal defect, patent ductus arteriosus and tetralogy of Fallot can be found in about 30% of the cases reported with congenital pericardial defect [2-4]. A case of congenital tricuspid valve insufficiency or Ebstein anomaly associated with a pericardial defect was not reported yet. You presented recently the first case of congenital tricuspid insufficiency associated with partial absence of the right-sides pericardium.

In our case we reported the tricuspid annulus was widely dilated due to heart displacement and stretching of the right ventricular anterior wall. The tricuspid valve leaflets appeared of normal structure. The anterior tricuspid leaflet had a normal size and shape but was disrupted from the tricuspid annulus. There existed no further congenital anomalies in this case beside the absence of left thoracic pericardium.

It is to emphasize that any larger pericardial defect including right sided absence of pericardium has an impact on the geometry of the heart and may alter the integrity and function of the atrioventricular valves although a major cardiac displacement is not apparent. In addition we have to be aware that the risk for valvular endocarditis is increased in valvular heart disease and observed valvular thickening or attenuation can be caused by endocarditis [5].

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## Letter to the Editor

### The effect of single low-dose methylprednisolone on the cardiopulmonary bypass-induced inflammatory response

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**Keywords:** Methylprednisolone; interleukins; Coronary surgery; Cardiopulmonary bypass

We read with great interest the article by Bourbon and colleagues [1]. Systemic inflammatory response (SIR) related to cardiac surgery is a complex process with several triggering factors. Anaesthetic agents, many drugs used in the perioperative period, extracorporeal circulation techniques and specific equipment, transfusion of blood and/or blood products, myocardial preservation methods, unavoidable myocardial injury that was not defined as perioperative myocardial infarction with the usual criteria, as well as many other characteristics belonging to the patient have an interactive effect on SIR. We suppose that many variables should be taken into account in both the design and analysis of such studies, and should be reported in detail. Unfortunately, there is no explanation regarding anaesthetic technique and drugs, information on blood and/or blood product usage and their distribution according to the groups in this article.

Although there is only one statistical test 'Mann-Whitney U' that is properly selected for comparison of different groups mentioned in the Methods Section (2.6), this report contains statistical analysis of serial measurements in time within groups.

One of the important findings of this study [1] is the early (aortic post-declamping) peak of oxygen free radical (OFR) level (Fig. 4). However, this may be in association with myocardial injury that needs to be questioned. This relation could be enlightened by high specific markers of myocardial injury such as Troponin T or Troponin I enzyme assessment. Conventional coronary artery bypass surgery is successfully performed in most patients without major complication,

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