

Accepted Manuscript

An Aspirin a Day may not be enough?

Paul J. Chai, MD

PII: S0022-5223(17)31712-9

DOI: [10.1016/j.jtcvs.2017.07.059](https://doi.org/10.1016/j.jtcvs.2017.07.059)

Reference: YMTC 11796

To appear in: *The Journal of Thoracic and Cardiovascular Surgery*

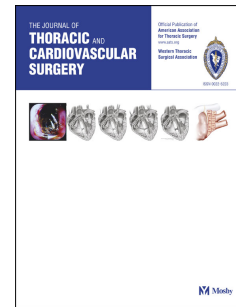
Received Date: 27 July 2017

Revised Date: 0022-5223 0022-5223

Accepted Date: 31 July 2017

Please cite this article as: Chai PJ, An Aspirin a Day may not be enough?, *The Journal of Thoracic and Cardiovascular Surgery* (2017), doi: 10.1016/j.jtcvs.2017.07.059.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



An Aspirin a Day may not be enough?

Paul J. Chai, MD

Section of Congenital and Pediatric Cardiac Surgery

Division of Cardiac, Thoracic and Vascular Surgery

Morgan Stanley Children's Hospital, New York-Presbyterian

Columbia University Medical Center

This manuscript from Boston examines the utility of laboratory testing for aspirin efficacy in pediatric cardiac surgical patients.¹ This is a retrospective study of 430 pediatric patients who received aspirin following cardiac surgery. The authors sought to determine the association with platelet testing and thrombosis rates in cardiac surgical patients with high risk for thrombosis following surgery. Aspirin unresponsiveness was detected in 64 patients (15%) with thrombosis in 11 patients (2.6%). In most cases, aspirin was started after 2-5 days of the administration of unfractionated heparin. Aspirin was given at a dose of 3-10mg/kg/day. Thrombosis events were recorded as symptomatic events (stroke, limb ischemia, shunt thrombosis) or asymptomatic evidence of thrombus (evidence on echo or cardiac cath).

The authors found an association with aspirin unresponsiveness on initial testing ((VerifyNow ARU value >550 indicating subtherapeutic platelet inhibition²) and thrombotic events. They also found that 37% of patients who did not have dose adjustment following inadequate response to aspirin developed thrombosis events, while those who did have dose increases based on testing did not develop subsequent thrombosis.

The study is an intriguing one, as the ability to adequately assess aspirin responsiveness would potentially provide value in various clinical scenarios. It is difficult to interpret the findings of the study however, as the overall incidence of thrombosis was low (11 out of 430 patients). The study is also limited from the retrospective nature of the study, as the clinical management of all of these patients was not consistent. For instance, not all patients who were found to be subtherapeutic were treated identically. In addition, the diagnosis of thrombosis seems inexact and widely variable (stroke, limb ischemia, shunt thrombosis etc). The paper could have been strengthened if the cohort of patients were narrowed and more consistent (i.e just looking at shunt thrombosis patients etc). Most of the endpoints of thrombosis could be due to other factors not related to aspirin, for instance stroke could be caused by bleeding or embolus and shunt thrombosis may be related to technical issues. In fact, the majority of patients who experienced thrombosis were excluded because they occurred prior to aspirin use, but during administration of heparin, suggesting many factors are involved (not just degree of anticoagulation). As a result, it seems difficult to conclude that the end result of thrombosis was caused by poor aspirin efficacy when the nature of thrombosis was so varied and could easily be accounted by other factors.

The notion of testing for aspirin effectiveness certainly makes sense in postoperative cardiac patients, and the authors should be commended for examining this. The study's findings

Download English Version:

<https://daneshyari.com/en/article/5616271>

Download Persian Version:

<https://daneshyari.com/article/5616271>

[Daneshyari.com](https://daneshyari.com)