Abdominal compartment syndrome: does intra-cystic pressure reflect actual intra-abdominal pressure? A prospective study in surgical patients

ABSTRACT

The intra-cystic pressure in the current study model did not accurately represent the intra–abdominal pressure. "We feel that further research is needed to identify other potential factors contributing to the relationship between the urinary bladder and abdominal cavity pressures, in order to provide a more accurate diagnosis of abdominal compartment syndrome."

INTRODUCTION

Introduction 'A prospective study in surgical patients'

In this study, we examined the relationship between intra-abdominal pressure and the incidence of abdominal compartment syndrome.

The study was conducted in a population of women with abdominal compartment syndrome (ACS) who were admitted to the hospital in the first year of life. All women were followed up for at least 3 years. The study included a total of 1,919 patients from the study population.

Patients were included if they had an intra-abdominal pressure (IAP) of ≤6.5 mm Hg, which is considered to be acceptable for the diagnosis of ACS.

The study included an analysis of the relationship between IAP and the incidence of ACS. In order to diagnose ACS, we use a Foley catheter to measure intra-cystic pressure (ICP) as reflected IAP. However, human studies linking ICP and IAO are lacking, so we conducted invasive study in 1984 using this technique. We simultaneously measured pressures across the urinary bladder wall in 21 surgical patients.

CONCLUSION

The current model did not account for ICP, which did but not reflect actual IAP. Despite some limitations in the study design, we feel that additional research is necessary to identify other potential factors that may affect the relationship between the urinary bladder and abdominal cavity, providing better tools for diagnosing ACS. We are currently conducting a prospective study on severely injured trauma patients to help answer these questions.