

Title: Novel Mechanism for Psyllium Husk Pericardiocentesis Model

Introduction

Cardiac tamponade presents a critical challenge among medical providers due to limited proficiency in pericardiocentesis, a life saving procedure in view of lacking in training mediums and opportunities.

Case description

Various pericardiocentesis training models employing multiple mediums including gelatin, agar, psyllium husk, balloon models and 3d printed models were developed to tackle this void.

In response, Hospital Miri Emergency & Trauma Department has come up with a novel mechanism for pericardiocentesis training model, utilizing the existing gelatin and psyllium husk recipe to mimic normal soft tissue, pericardial sac, pericardial fluid and heart to enhance the accessibility to pericardiocentesis training. We are reporting our first usage of this model in a Trauma Life Support Malaysia (TLSM) Course in Miri this year.

Discussion

This report describes the innovative mechanism psyllium husk pericardiocentesis training model developed in Hospital Miri. We discuss the advantages and drawbacks of our mechanism from the traditional psyllium husk pericardiocentesis model. The debut of our model in TLSM Miri 2024 indicates for it to be cost efficient, sustainable, and were able to mimic the layers of tissue, pericardial sac, pericardial fluid and heart thus enhancing the training experience for this procedure.

Conclusion

The introduction of our novel mechanism of pericardiocentesis training model provides an innovative upgrade over the existing psyllium based training model as we offer improved accessibility, reusability and better realism for pericardiocentesis training.

Keywords

Pericardiocentesis, Training model, Psyllium husk model