

## A Male Infant with Vomiting

Hung-Si Tan<sup>1</sup>, Ping-Yuan Chen<sup>2</sup>, Yu-Chang Liu<sup>3</sup> and Wei-Jing Lee<sup>4\*</sup>

<sup>1</sup>Department of Emergency Medicine, Chi Mei Medical Center, Tainan, Taiwan No.901, Zhonghua Rd., Yongkang Dist., Tainan City 710, Taiwan

<sup>2</sup>Department of Emergency Medicine, Chi Mei Medical Center, Tainan, Taiwan No.901, Zhonghua Rd., Yongkang Dist., Tainan City 710, Taiwan

<sup>3</sup>Department of Emergency Medicine, Chi Mei Medical Center, Tainan, Taiwan No.901, Zhonghua Rd., Yongkang

<sup>4</sup>Department of Emergency Medicine, Chi Mei Medical Center, Tainan, Taiwan No.901, Zhonghua Rd., Yongkang Dist., Tainan City 710, Taiwan

### \*Corresponding author:

Wei-Jing Lee,  
Department of Emergency Medicine, Chi Mei  
Medical Center, Tainan, Taiwan No.901, Zhonghua  
Rd., Yongkang Dist., Tainan City 710, Taiwan,  
Tel: 886-6-2812811, E-mail:echolee1103@gmail.com

Received: 11 Apr 2022

Accepted: 02 May 2022

Published: 09 May 2022

J Short Name: ACMCR

### Copyright:

©2022 Wei-Jing Lee. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and build upon your work non-commercially.

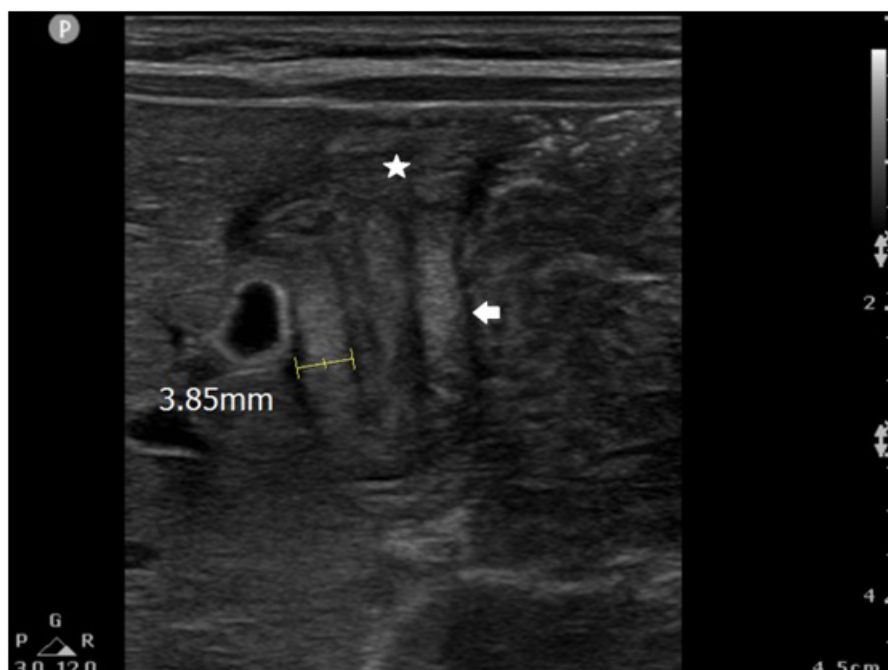
### Citation:

Wei-Jing Lee, A Male Infant with Vomiting. Ann Clin Med Case Rep. 2022; V9(3): 1-2

## 1. Case Presentation

A 22-day-old full-term previously healthy male infant, presented to the emergency department with persistent non-projectile, non-bloody, non-bilious vomiting for 4 days. His parents reported

that he drank only 60 to 70 ml of formula per feed, as compared with the 90 to 110 ml per feed he had drunk in the previous day. Physical examination was unremarkable. Point-of-care ultrasound (POCUS) of the abdomen revealed thickening of the pylorus canal (Figure1).



**Figure 1:** Longitudinal plane of right upper quadrant abdomen showing thickening of pylorus (Bold arrow) muscular layer. Single muscle wall thickness measures 3.85mm. Stomach (Asterix) was not distended after patient vomited.

## 2. Discussion

Hypertrophic pyloric stenosis (HPS). Point-of-care ultrasound (POCUS) of the abdomen revealed thickening of the pylorus canal with single muscle thickness measuring up to 3.85 mm (Figure 1). Ramstedt pyloromyotomy was performed and revealed hypertrophic muscle surrounding the pyloric canal with luminal stenosis (Figure 2). The postoperative period was uncomplicated and the patient was discharged at 4 days. Hypertrophic pyloric stenosis

(HPS) is the most common cause of vomiting in infants, characterized by thickening of pyloric muscles with luminal stenosis, which requires surgery [1]. Ultrasound is the preferred image modality, as it is non-invasive and provides detail and real-time image of the pylorus [2]. Ultrasound diagnostic measurements include single pyloric muscle thickness of more than 3mm, and the pyloric channel length (longitudinal measurement) of greater than 15mm make the diagnosis, and the feasibility of POCUS performed by emergency physicians to diagnose HPS has been proved [3].



**Figure2:** Ramstedt pyloromyotomy was performed and revealed hypertrophic muscle surrounding the pyloric canal with luminal stenosis.

## References

1. Peters B, Oomen MW, Bakx R, Benninga MA. Advances in infantile hypertrophic pyloric stenosis. *Expert Rev Gastroenterol Hepatol.* 2014; 8(5): 533-541.
2. Costa Dias S, Swinson S, Torrão H. Hypertrophic pyloric stenosis: tips and tricks for ultrasound diagnosis. *Insights Imaging.* 2012; 3(3): 247-250.
3. Malcom GE 3rd, Raio CC, Del Rios M, Blaivas M, Tsung JW. Feasibility of emergency physician diagnosis of hypertrophic pyloric stenosis using point-of-care ultrasound: a multi-center case series. *J Emerg Med.* 2009; 37(3): 283-286.