Annals of Case Reports
Ibrahim M and Badshah M. Ann Case Rep: 10: 102426
www.doi.org/10.29011/2574-7754.102426
www.gavinpublishers.com

OPEN ACCESS

GAVIN PUBLISHERS

Case Report

Intra-abdominal Heart in Adulthood: A Rare Case Report

Muhammad Ibrahim[1]; Masroor Badshah[2*]

[1]Health Net Hospital, Hayatabad, Peshawar, 25100, Pakistan

[2]Hudson Institute of Medical Research, Monash University, Clayton, VIC 3168, Australia

[*]**Corresponding author**: Masroor Badshah, Hudson Institute of Medical Research, Monash University, Clayton, VIC 3168, Australia

Citation: Ibrahim M, Badshah M (2025) Intra-abdominal Heart in Adulthood: A Rare Case Report. 10: 2426. DOI: 10.29011/2574-7754.102426

Received: 30 September 2025; **Accepted**: 08 October 2025; **Published**: 10 October 2025

Abstract

Background: Intra-abdominal heart is an extremely rare congenital anomaly, typically associated with ectopia cordis or complex congenital syndromes, and is seldom identified in adulthood.

Case Presentation: We report the case of a 25-year-old female who presented with epigastric discomfort and intermittent chest pain. Preoperative diagnostic workup suggested a hiatal hernia, for which diagnostic laparoscopy was undertaken. Intraoperatively, the surgeon unexpectedly visualized the heart partially located within the abdominal cavity.

Management and Outcome: The patient's management plan was promptly revised, involving a multidisciplinary team comprising cardiothoracic surgeons and gastroenterologists. Tailored evaluation and management strategies were applied to address both the hiatal hernia and the intra-abdominal heart anomaly.

Conclusion: This case highlights the significance of anticipating rare anomalies during surgery and the essential role of a collaborative, multidisciplinary approach in managing complex intraoperative findings.

Keywords: Intra-abdominal heart; Ectopia cordis; Congenital anomaly; Case report

Introduction

Ectopia cordis and intra-abdominal heart are exceedingly rare congenital malformations, most often recognized in neonates and rarely in adulthood.

Literature reports indicate associations with syndromic anomalies, poor survival, and challenging management strategies [1, 2]. Improved prenatal imaging has increased detection rates, but adult presentations remain exceptional [3].

We present a rare adult case of intra-abdominal heart discovered incidentally during surgery.

Case Presentation

A 25-year-old female presented with recurrent epigastric discomfort and intermittent chest pain. Clinical evaluation and imaging suggested a hiatal hernia, and she was scheduled for diagnostic laparoscopy. Intraoperatively, surgeons unexpectedly noted that the heart was partially located within the abdominal cavity.

The procedure was halted, and a multidisciplinary evaluation was arranged. Subsequent investigations confirmed the anomaly without major intracardiac defects. Cardiothoracic and gastroenterology specialists collaborated to optimize care. Management included addressing the hernia and planning long-term surveillance for potential complications associated with the ectopic heart.

Discussion

Intra-abdominal heart, a variant of ectopia cordis, represents an extremely rare anomaly with very limited adult case documentation. Embryologically, it results from defective migration and closure of the midline mesoderm during early gestation [1]. Survival into adulthood is rare and usually depends on the absence of associated intracardiac or extracardiac malformations [2-4].

This case underscores the importance of intraoperative vigilance and highlights the value of a multidisciplinary team in managing unexpected congenital anomalies discovered in adulthood. Our case contributes to the sparse literature and emphasizes that such anomalies, though rare, can present beyond the neonatal period.

Conclusion

Adult presentation of intra-abdominal heart is exceedingly rare. Recognition of such anomalies requires heightened awareness among surgeons, and multidisciplinary collaboration is key to ensuring safe and effective management.

References

1. Engum SA. (2008). Embryology, sternal clefts, ectopia cordis, and Cantrell's pentalogy. Semin Pediatr Surg. 17: 154-160.
2. Morales JM, Patel SG, Duff JA, Villareal RL, Simpson JW. (2000). Ectopia cordis and other midline defects. Ann Thorac Surg. 70: 111-114.
3. Júnior EA, Coutinho LG, Bravo-Valenzuela NJ, Aquino P, da Rocha LA. (2023). Ectopia cordis: prenatal diagnosis, perinatal outcomes, and postnatal follow-up of an international multicenter cohort case series. J Matern Fetal Neonatal Med. 36: 2203791.
4. Thakur S, Kapila S, Smita Thakur C, Thakur N. (2025). Ectopia cordis with multiple congenital malformations: rare but real. J Ultrasound. 28: 531-535.