Incarcerated Appendix Within a Left-Sided De Garengeot Hernia: A Case Report

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Introduction

A De Garengeot hernia is a rare presentation of a femoral hernia that contains the appendix. This case identifies how appendicitis can arise from an original, isolated pathology within a De Garengeot hernia.

Case Presentation

A 72-year-old female with a history of recurrent incarcerated left inguinal hernia presented with 3 days of intermittent left groin pain. She had abdominal tenderness and a firm, non-reducible left inguinal hernia sac with mild suprapubic erythema. CT imaging showed left inguinal hernia containing bowel with surrounding inflammation and interloop ascites surrounding the herniated segment. There was circumferential bowel wall thickening and hyperenhancement of the bowel wall near the hernia neck suggested ischemia. Patient was taken emergently to the operating room for left inguinal hernia repair and possible exploratory laparotomy.

Operative Technique

An open inguinal hernia approach with an incision over the left inguinal ligament was made. The external oblique fascia was incised down to the external inguinal ring to expose the inguinal canal and floor. The hernia sac was below the inguinal ligament and the ligament was transected to allow for reduction. The bowel didn't appear ischemic and was reduced into the abdomen. The inguinal ligament was reapproximated using a 2-0 PDS. An additional 2-0 PDS was used to close the floor, and in Cooper's ligament to the pectineal ligament, with a transitional stitch on the floor. The external oblique was reapproximated using a 2-0 Vicryl. A 15 Fr drain was placed into the hernia sac and brought through the lateral aspect of the incision. A 5 mm incision was made below the umbilicus and a 5 mm Optiview trocar was placed into the abdomen. Two 5 mm ports were placed in the suprapubic position and in the right lower quadrant to inspect the bowel. The appendix was adherent to the reduced hernia sac, with the cecum pulled over to the left side of the abdomen. The appendix was transected at the base and placed in an Endo-Catch bag. The patient had a stable recovery and was discharged on the second postoperative day. She remained stable after 3 months of follow-up.



Conclusion

The case presented is a rare case of an incarcerated appendix within a left femoral hernia. Given the paucity of cases with this type of presentation in adults, it should be distinguished from right-sided de Garengeot hernias. Laparoscopic appendectomy was performed to relieve symptoms and to obtain histopathological findings for an accurate diagnosis.

References

Hernia Containing the Appendix. Surgical Infections Case Reports.Dec 2016.135-138.http://doi.org/10.1089/crsi.2016.0034

N.D'Ambrioso,D.Katz,J.HinesPerforatedappendixwithinafemoralhernia Am. J. Roentgenol., 186 (2006), pp. 906-907

JPWyatt,JSVarma,Femoralherniaappendixcausingsmallintestinal obstruction, Postgraduate Medical Journal, Volume 68, Issue 797, March 1992, Pages 223–224, https://doi.org/10.1136/pgmj.68.797.223

BidarmaghziB,BorrowdaleRC,RaufianK.Ararepresentationofappendicitis inside the femoral canal: case report and literature review. Surg Case Rep. 2018 Dec 13;4(1):143. doi: 10.1186/s40792-018-0552-y. PMID: 30547242; PMCID: PMC6292845.

SharmaH,JhaPK,ShekhawatNS,MemonB,MemonMA.DeGarengeot hernia: an analysis of our experience. Hernia. 2007 Jun;11(3):235-8. doi: 10.1007/s10029-007-0208-5. Epub 2007 Mar 6. PMID: 17340052.

LawrenceElsaacs,ChadHFelsenstein,Acuteappendicitisinafemoralhernia: an unusual presentation of a groin mass1 1Clinical Communications is coordinated by Ron Walls, MD, of Brigham and Women's Hospital and Harvard University Medical School, Boston, Massachusetts, The Journal of Emergency Medicine, Volume 23, Issue 1, 2002, Pages 15-18, ISSN 0736-4679, https://doi.org/10.1016/S0736-4679(02)00455-9. (https://www.sciencedirect.com/science/article/pii/S0736467902004559)

AndreaJosephNaim,MarieShellaDeRobles,ThedeGarengeothernia chicken-and-egg conundrum: Acute appendicitis in an incarcerated femoral hernia, but which came first? A case report, International Journal of Surgery Case Reports, Volume 109, 2023, 108554, ISSN 2210-2612, https://doi.org/10.1016/j.ijscr.2023.108554. (https://www.sciencedirect.com/science/article/pii/S2210261223006831)

CarlosBustamanteRecuenco,JavierGarcía-QuijadaGarcía,ManuelCendrero Martín, Alberto Carabias Hernández, Ana Serantes Gómez, Paloma Sanz Muñoz, Miguel Ángel Delgado Millán, José María Jover Navalón, De Garengeot's hernia: Case report and literature review, International Journal of Surgery Case Reports, Volume 64, 2019, Pages 58-61, ISSN 2210-2612, https://doi.org/10.1016/j.ijscr.2019.09.037. (https://www.sciencedirect.com/science/article/pii/S221026121930536X)

AlyssaGoldbach,ParthaHota,AndrewCzulewicz,ChristineBurgert-Lon,Omar Agosto, "A Rare Case of Chronic Appendicitis Superimposed on an Incarcerated de Garengeot Hernia Prospectively Identified on Computed Tomography", Case Reports in Surgery, vol. 2018, Article ID 5324320, 6 pages, 2018. https://doi.org/10.1155/2018/5324320

A. Hussain, A.A.P. Slesser, S. Monib, J. Maalo, M. Soskin, J. Arbuckle, A De Garengeot Hernia masquerading as a strangulated femoral hernia, International Journal of Surgery Case Reports, Volume 5, Issue 10, 2014, Pages 656-658, ISSN 2210-2612, https://doi.org/10.1016/j.ijscr.2014.08.001(https://www.sciencedirect.c om/science/article/pii/S2210261214001825)

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