



The Role of Family Physician in The Follow Up of Omental Infarction Patients: Case Report

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Abstract. Acute abdomen is one of the most common presentations in the emergency department, and sometimes it is challenging to find a specific cause of the abdominal pain without advanced imaging. Omental infarction is one of the causes of abdominal pain that can be missed without imaging as its clinical features are similar to other causes of abdominal pain. Due to the rarity of omental infarction, some patients have no complete understanding of their disease and they need more explanation from their family physician. This article aims to mention the importance of post hospitalization follow up for omental infarction patients. Also, we are trying to draw the attention of emergency physicians about considering omental infarction as one of the causes of acute abdominal pain. Omental infarction can be treated conservatively or surgically with a success rate of 84.3% for conservative options. Young male with white cell counts greater than 12000 had a high rate of conservative management failure, but our patient was having WCC of 16000 at presentation and conservative treatment was successful for his condition.

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1. Introduction:

Omental infarction represents 0.3% of acute abdominal pain cases (Concannon et al., 2013; Park et al., 2012). It usually presents as acute abdominal pain with higher incidence in males in their fourth and fifth decade of their life. It can be managed either conservatively or surgically. In this case report we are trying to bring the attention of emergency physicians about omental infarction as a cause of acute abdominal pain. Also, we are trying to show the important role of primary health care providers in managing patients who are on conservative management plan.

2. Case Presentation:

A forty years old male with a past medical history of type 2 diabetes and obesity went to the emergency department (ED) at midnight by ambulance after he developed a sudden acute, sharp abdominal pain in the right upper quadrant and right flank area, the patient stated that pain was 15/10 in severity. On evaluation at ED patient was vitally stable and afebrile, all blood works were within the normal limit at that time except white cell count (WCC) was 16.3 mg/dl. The patient has no significant past surgical history. The abdominal ultrasound was unremarkable, however CT scan with contrast showed signs of omental infarction. The patient has been treated with naproxen and

narcotics and the pain decreased in severity and was discharged home on 500 mg Naproxen BID with advice to follow up with his PCP.

The author has evaluated the patient in the next day, the patient was feeling better and rate his pain severity as 2/10, and the pain did not radiate to any other region, Author asked about any new changes in the patient's lifestyle, the patient stated that he is doing an exercise by walking seven miles per day and he lost about thirty pounds during the last three months. The author sent a complete blood count (CBC) to track WCC and the results came back 10.6 which is within normal limits. patient instructed to keep watching for any worsening symptoms and to seek medical advice if that happens.

Another follow up visit scheduled five days after the emergency visit, in this visit the patient was pain-free and had no nausea, vomiting, diarrhea, constipation, or any urinary complaints. We advised him to continue taking the naproxen as needed for pain and to come back in nine days to check on his symptoms and to repeat CBC with C-Reactive protein (CRP) in nine days in order to check his WCC for the last time.

On day fifteen, the patient showed to the office for a follow-up, his abdominal pain resolved on the abdominal exam abdomen was soft, non-tender, and distended due to

obesity. WCC was 12000, and his CRP was within normal limits.

2. Discussion

2.1. Omental infarction

Omental infarction represents 0.3% of acute abdominal pain cases and found in 0.1% of laparoscopies (Concannon et al., 2013). Males affected twice commonly than females, with a higher incidence in the fourth and fifth decade of life, and pediatric represented 15% of the reported cases (Park et al., 2012).

The causes of omental infarction are unknown and the proposed contributing factors include high body mass index, vascular congestion especially from right-sided heart failure, vigorous exercise, hyperperistalsis after binge eating, redundant omentum, and high intra abdominal pressure (Concannon et al., 2013; Park et al., 2012).

omental infarction cases can be categorized into two types depending on the culprit, if no etiology has been found then it is labeled as primary or idiopathic case, while if a clear cause is uncovered then the case will be described as a secondary omental infarction and here many etiologies are implicated like vasculitis, hypercoagulability and

omental torsion due to inflammation, hernia, cyst or tumor. Also many medical conditions have been implicated as risk factors for this medical condition including high body mass index, vascular congestion especially from right-sided heart failure, vigorous exercise, hyperperistalsis after binge eating, redundant omentum, digitalis use and high intra abdominal pressure (Concannon et al., 2013; Park et al., 2012; Barai & Knight, 2011).

Due to lack of the specific signs and symptoms, most cases are diagnosed by CT scan with IV contrast. The ill-defined heterogeneous fat density with surrounding inflammatory changes is the most common finding in CT scans (Figure 1) (Singh et al., 2006; Udechukwu et al., 2018). This lesion is situated between the large intestine and the anterior abdominal wall, the most frequent reported size is greater than 5 cm (Rao et al. 2007). Ultrasound lacks sensitivity to diagnose omental infarction and more than 50% of cases have been missed even when reviewed retrospectively (Grattan-Smith et al., 2002). The rarity of this condition can be attributed to multiple collaterals formation and symptoms appear only when these collaterals are not working normally (Kamaya et al., 2011).

Omental infarction can be treated conservatively in 78% of cases (Itenberg et al., 2010). The Conservative treatment option has a success rate of 84.1 %. Younger patients and patients who present with white cell count greater than 12000 at the admission has a higher rate of conservative treatment failure. While in our patient conservative management were successful even with WCC greater than 12000 at presentation. The other treatment option is laparoscopic surgery. Patients who fail conservative management may need laparotomy due to

abscess formation or other complications (Medina-Gallardo et al., 2020).

In this study, we are trying to show the importance of considering other rare causes of acute abdominal pain, And the role of the primary care physician in following up omental infarction patient after the discharge. In addition, we were not able to find any recommendations about which anti-inflammatory medicine can increase the success rate of conservative treatment. Also we are trying to find connections between weight loss due to vigorous exercise and omental infarction development.



Figure 1: Abdominal and pelvic computed tomography with contrast revealed circumscribed area, 53.0 × 47.9 mm, with inflammation centered around the omental fat at the time of diagnosis. The red arrow points to the area of omental infarction.

3. Conclusion

In this case the patient was having a high WCC and conservative management plan was successful. The availability of CT scan in the emergency department leads to increased the number of the reported omental infarction cases. Also the rule of primary care physicians in arranging frequent follow up visits to counsel and evaluate the patients and follow up the inflammatory markers is important for the success of the conservative management plan.

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References:

1. Concannon, E. S., Hogan, A. M., Ryan, R. S., Khan, W., & Barry, K. (2013). Primary omental infarction: a rare cause of acute abdominal pain. *Clinical and Experimental Medical Sciences*, 1(5-8), 233-240.
2. Barai, K. P., & Knight, B. C. (2011). Diagnosis and management of idiopathic omental infarction: a case report. *International Journal of Surgery Case Reports*, 2(6), 138-140.
3. Grattan-Smith, J. D., Blews, D. E., & Brand, T. (2002). Omental infarction in pediatric patients: sonographic and CT findings. *American Journal of Roentgenology*, 178(6), 1537-1539.
4. Itenberg, E., Mariadason, J., Khersonsky, J., & Wallack, M. (2010). Modern management of omental torsion and omental infarction: a surgeon's perspective. *Journal of surgical education*, 67(1), 44-47.
5. Kamaya, A., Federle, M. P., & Desser, T. S. (2011). Imaging manifestations of abdominal fat necrosis and its mimics. *Radiographics*, 31(7), 2021-2034.
6. Medina-Gallardo, N. A., Curbelo-Peña, Y., Stickar, T., Gardenyes, J., Fernández-Planas, S., Roura-Poch, P., & Vallverdú-Cartie, H. (2020). Omental infarction: surgical or conservative treatment? A case reports and case series systematic review. *Annals of Medicine and Surgery*, 56, 186-193.
7. Park, T. U., Oh, J. H., Chang, I. T., Lee, S. J., Kim, S. E., Kim, C. W., ... & Lee, K. J. (2012). Omental infarction: case series and review of the literature. *The Journal of emergency medicine*, 42(2), 149-154.
8. Rao, A., Remer, E. M., Phelan, M., & Hatem, S. F. (2007). Segmental omental infarction. *Emergency radiology*, 14(3), 195-197.
9. Singh, A. K., Gervais, D. A., Lee, P., Westra, S., Hahn, P. F., Novelline, R. A., & Mueller, P. R. (2006). Omental infarct: CT imaging features. *Abdominal imaging*, 31(5), 549-554.
10. Udechukwu, N. S., D'Souza, R. S., Abdulkareem, A., & Shogbesan, O. (2018). Computed tomography diagnosis of omental infarction presenting as an acute abdomen. *Radiology case reports*, 13(3), 583-585.

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