ORIGINAL RESEARCH PAPER

Volume-7 | Issue-4 | April-2018 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

PRIMARY IDIOPATHIC SEGMENTAL OMENTAL INFARCTION: A RARE CASE REPORT

General Surgery

Dr. H.P. Garg M.S (GENERAL SURGERY)Senior Consultant, General and Laparoscopic Surgery

Dr. Kalpit Goriwal* Dnb General Surgery M.s. Office Indraprastha Apollo Hospitals Sarita Vihar New Delhi 110076 India *Corresponding Author

Dr. Adheesh Goriwal DNB General Surgery

ABSTRACT

Omental Infarction is a rare cause of acute abdomen due to vascular compromise of the great omentum. When omentum infarction occurs exclusive of omental torsion, it is known as **Primary Idiopathic Segmental Infarction.** Here we present a case report of a middle age gentleman who presented to us with non-specific abdominal pain and discomfort. On relevant investigations, a diagnosis of Primary idiopathic segmental infarction of the greater omentum was made. The patient was managed on conservative lines. Here we emphasize on the need for considering this pathology as a possible differential diagnosis of acute abdomen and the overwhelmingly satisfactory results of conservative treatment protocols for the management of this disease.

KEYWORDS

omental infarction, segmental infarction, idiopathic infarction, epiploic appendagitis, intraperitoneal focal fat infarction, greater omentum.

INTRODUCTION:
Omental Infarction is a rare differential diagnosis of acute abdomen. Along with Epiploic Appendagitis, it is grouped under the broader umbrella of Intraperitoneal Focal Fat Infarction.

Omental Infarction per se is due to vascular compromise of the greater omentum.

Primary Omental Infarction occurs with staggering predominance in the right lower quadrant of abdomen, medial to ascending colon or cecum.

The vascular compromise occurs along the right edge of the greater omentum due to the tenuous blood supply. Sometimes, it can occur due to kinking of venous channels in the inferior part of the greater omentum in the pelvis. When omental torsion is the cause of infarction, both, arterial and venous compromise occur. When omentum infarction occurs exclusive of omental torsion, it is known as Primary Idiopathic Segmental Infarction.

Secondary Omental Infarction may be post-operative, due to omental infalmmation or following an abdominal trauma.

Obesity has been suggested as a precipitating factor for both, primary and secondary omental infarction. Other strong associations include adult age (peak being 40-50 yrs age group; less than 15% cases occur in pediatric population), male sex, heavy exertion and sudden change in body position.

The exact etiopathogenesis of primary omental infarction is still elusive, however, redundant omentum, vascular congestion, increased intra-abdominal pressure and hyperperistalsis due to over eating have been implicated.

Clinical Picture is hazy and is predominated by sudden onset diffused or right lower abdominal pain and tenderness, absence of fever and other gastrointestinal symptoms.

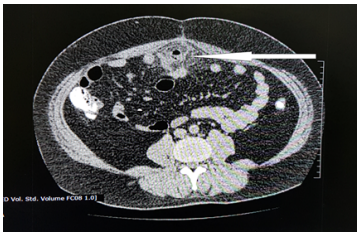
Diagnosis is based on high index of suspicion and imaging studies (USG and CT scan). Ultrasonography abdomen will demonstrate non-compressible focal area of increased echogenecity in the omental fat. Computed Tomography will reveal focal area of fat stranding, a fluid cavity, hyperdense peripheral halo and swirling of omental vessels in omental torsion.

Treatment of idiopathic omental infarction is predominantly on conservative grounds and in majority of cases, this is what suffices for the patient.

Important differentials for the pathology include epiploic appendagitis, acute appendicitis, diverticulitis and mesenteric panniculitis.

CASE REPORT: Here we present the case of a 43 year old gentleman who is obese (BMI-32.10) and a known case of diabetes mellitus type II and hypertension since 10 years. He presented to us with the chief complaint of diffuse pain abdomen and discomfort of 1 day duration. There was no associated complaint of fever, vomiting, loose stools or difficulty in micturition. No significant drug or family history was noted. The patient is obese with a BMI of 32.10 and on interrogation, was found to have a voracious apetite with average daily calorie intake of around 4000kcals.

The patient consumes around 40gm of alcohol each day(by proof spirit calculations). On examination, the abdomen was mildly distended with vague lump palpable in periumbilical region and moderate tenderness in the same region. The patient was advised CECT Abdomen which demonstrated area of fat stranding intraperitoneally in the region of umbilicus. The area measured around 4 x 3 cm. There was presence of a hollow cavity in the centre of the lump, most probably due to ensuing necrosis due to infarction. A diagnosis of Omental Infarction was made and patient was managed conservatively on antibiotics, analgesics and close monitoring. The patient responded satisfactorily to the management protocol and was discharged with advise of weight reduction and improving eating habits. At 8 weeks post discharge patient was actively followed up and was found to be completely asymptomatic during this period.



CECT ABDOMEN

Arrow points at the fat stranded area
A hollow cavity is appreciable in the centre of the pathology

DISCUSSION: Primary Idiopathic Omental Infarction is encountered in medical practice with increased prevalence due to increased incidence as a result of lifestyle changes and better imaging modalities available. A typical patient will be a middle age obese male presenting

with acute onset pain abdomen. On imaging studies, the pathology is diagnosed. A high index of suspicion is required to diagnose this rare disease entity. Diagnosis is important because it will decide the management which is predominantly conservative.

CONCLUSION: Primary Idiopathic Omental Infarction is a rare disease entity presenting as acute abdomen. Diagnosis requires a high index of suspicion and will remain elusive if the importance of this lifestyle related pathology is not born in mind. Actively excluding the disease is required taking into account the fact that it is one of the rare acute abdominal conditions which are self limiting and require conservative management. Correct diagnosis will eliminate unnecessary operative procedures in the patient. With increasing incidence of obesity and unhealthy dietary habits, omental infarction should be considered amongst the differentials of acute abdomen, atleast in obese patients of the above mentioned associative profiles.

REFERENCES

1. Buell, K. G., Burke-Smith, A., Patel, V., & Watfah, J. (2017, December 13). Omental Infarction: The Great Impersonator.
2) Coulier, B. (n.d.). Spontaneous and rapid healing of massive symptomatic postoperative right-sided infarction of the greater omentum.
3) Criado, I., Andrino, N. F., & López-Dóriga, P. (n.d.). [Omental infarction: An unusual cause of acute abdomen].
4) Sánchez-López-Gay, J., Becerra-Almazán, J. M., Reyes-Aguilar, R., Rodríguez-Barón, B., & Navarro-Duarte, J. C. (2017, October). [Cause of acute non-surgical abdomen: omental infarction].
5) Sun, X. W., Luo, B., & Lin, H. W. (n.d.). A rare case of acute primary omental infarction.
6) Patel, S. K., Kumar, A., Setya, A., Deo, A., & Raj, V. (2016, January). Primary omental infarction: A confusing diagnosis.
7) Arigliani, M., Dolcemascolo, V., Nocerino, A., Pasqual, E., Avellini, C., & Cogo, P. (2016, September). A Rare Cause of Acute Abdomen: Omental Infarction.
8) Aiyappan, S. K., Ranga, U., & Veeraiyan, S. (2015, December). Omental infarct mimicking acute pancreatitis.
9) Amo, R., De, J., Loza, A., Santos, F., Sánchez-Ocaña, R., & Arenal, J. J. (2015, November). Infarction of the greater omentum. Case report.
10) Ong, W. M., Matheson, J., Chandra, R., & Stella, D. L. (2018, January). Omental infarction: a case of a whole omental infarct.
11) Walia, R., Verma, R., Copeland, N., Goubeaux, D., Pabby, S., & Khan, R. (2014, July 08). Omental Infarction: An Unusual Cause of Left-Sided Abdominal Pain.
12) Armas, A. L., Pradillos, J. M., Rivera, L. L., Perri, L. E., García, M., Rodríguez, P., . . . Bautista, A. (2014, July). [Conservative treatment for omental infarction].
13) Smolilo, D., Lewis, B. C., Yeow, M., & Watson, D. I. (n.d.). Omental infarction mimicking cholecystitis.
14) Tonerini, M., Calcagni, F., Lorenzi, S., Scalise, P., Grigolini, A., & Bemi, P. (2015, August). Omental infarction and its mimics: imaging features of acute abdominal conditions presenting with fat stranding greater than the degree of bowel wall thickening.
15) Sánchez, P. A., López, V., Febrero, B., Ramírez, P., & Parrilla, P. (n.d.). Omental infarction: Surgical or conservative management?
16) Wertheimer, J., Galloy, M. A., Régent, D., Champigneulle, J., & Lemelle, J. L. (2014, March). Radiological, clinical and histological correlations in a right segmental omental infarction due to primary torsion in a child.
17) Wang, W., Wang, Z. J., Webb, E. M., Westphalen, A. C., Gross, A. J., & Yeh, B. M. (n.d.). Omental infarction preceded by anatomically upturned omentum.
18) Ryan, J., Simpson, P., & McLaughlin, S. (2013, February). Education and imaging: gastrointestinal: omental infarction.
19) Tsunoda, T., Sogo, T., Komatsu, H., Inui, A., & Fujisawa, T. (n.d.). A case report of idiopathic omental infarction in an obese child.
20) Bouilland, O., Le, S., Barbe, O., Moncade, F., & Ann, X. (2012, September). [Infarction of the grand omentum].
21) Barai, K. P., & Knight, B. C. (n.d.). Diagnosis and management of idiopathic omental infarction: A case report.
22) Nubi, A., McBride, W., & Stringel, G. (2009, May). Primary omental infarct: conservative vs operative management in the era of ultrasound, computerized tomography, and laparoscopy.
23) Mihrshahi, S., & Pikturnaite, J. (2008, October). Primary idiopathic omental infarction in the adult.
24) 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.
25) Kurguzov, O. P. (2005.). [Primary infarction of the greater omentum].
26) Strock, P., Baroudi, A., Laurin, C., Mordi, A., Sounni, A., Liebaert, M. P., . . . Fort, E. (2001). [Idiopathic segmental infarct of the omentum. Differential diagnosis in an obese patient].