



## Surgery

## SPONTANEOUS ISOLATED CAECA PERFORATION – A RARE CASE PRESENTATION.

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## KEYWORDS :

## INTRODUCTION-

Spontaneous perforation of colon (SPC) is a rare entity, defined as perforation of apparently healthy colon in absence of diseases or injury<sup>1,2</sup>. It is more common at the extremes of age especially elderly & premature infants but no age is exempted<sup>3,4</sup>. It results in peritonitis and free air under right dome of diaphragm necessitates laparotomy. In spontaneous perforation of colon are more common in sigmoid colon, caecum involves rarely.<sup>5,6,7</sup>

## CASE REPORT-

A 15-year-old female presented with complaint of fever since 1 month, acute abdominal pain, distention of abdomen and inability to pass flatus and faeces from 5 days. Pain started in periumbilical region, sudden onset, severe become generalized within few hours, associated with vomiting. Patient also complaints of low-grade fever from last 1 month not associated with chills and rigor, no diurnal variation. There was no history of altered bowel habit, bleeding per rectum, loss of weight and appetite, cough, trauma or any surgery or intervention. Patient complained of similar kind of febrile episode when she was 8 year old. At that time fever was mild and associated with auto amputation of 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> distal phalanx of right hand. For this condition she was consulted to a physician but no records are available. There was no history of tuberculosis, typhoid or amoebiasis in past.

On general examination: patient was conscious and alert, pallor present, BP= 94/60 mm Hg, PR= 138 /min with amputated 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> distal phalanx of right hand. In local examination abdomen is distended generalized tenderness, guarding and rigidity present with absent bowel sound and liver dullness masked, per-rectal examination showed remnant of stool, no mass lesion. Blood investigation: CBC- Hb- 6.2 gm/dl, Total leucocyte count 16500 with differential increase in neutrophils 87% and serum albumin/protein- 2.4/5.3 gm/dl. Other parameters were within normal limits. On X ray abdomen AP erect and chest X-ray PA view showed gas under right dome of diaphragm (fig.1). Patient was resuscitated in emergency. Preoperative diagnosis of hollow viscus perforation with peritonitis was made and patient was taken up for emergency laparotomy.

On laparotomy there was a caecal perforation with fecal peritonitis (fig 2). The perforation was approximately 0.2x0.3 cm with adjacent inflammation. Rest of bowel loops, liver and spleen were normal. Due to severe anemia and low value of albumin, ileostomy with mucous fistula of colon was made after thorough peritoneal lavage. Postoperative period was uneventful and patient was discharged on 8<sup>th</sup> post op day. Histopathology reports show nonspecific caecal perforation. On rheumatological consultation diagnosis of polymyositis was made and they started treatment in their follow up.



**Fig 1 Chest X- Ray PA view showing gas under Right dome of diaphragm**



**Fig 2. Single perforation at caecum**

## DISCUSSION-

A caecal perforation is a rare entity. It is usually associated with closed loop obstruction<sup>8</sup>, Ogilvie syndrome<sup>9,10</sup>, trauma<sup>11</sup>, inflammatory bowel disease<sup>12</sup>, infection such as tuberculosis<sup>13</sup> and typhoid<sup>12</sup>, diverticular disease<sup>14</sup>, and rarely associated with foreign bodies<sup>15</sup> or sometime spontaneous perforation<sup>16</sup>. The exact cause of spontaneous perforation is unknown, however some condition like hypothyroidism, intestinal hypomotility, chronic constipation and fecal impaction are associated with it<sup>17</sup>. Most cases of spontaneous colonic perforation associated with connective tissue disorder such as Marfan, Ehlers-Danlos Syndrome or polyarteritis nodosa which affect collagen synthesis and also affects blood vessels.<sup>18</sup> In the current patient cause may be polymyositis, a connective tissue disorder as the diagnosis made postoperatively. This is one of the example of spontaneous idiopathic caecal perforation.

## CONCLUSION-

Spontaneous caecal perforation is rare entity, in any patient suggestive of hollow viscus perforation with history suggestive of any rheumatological disorder. We should keep spontaneous perforation of colon as our preoperative differential diagnosis and if diagnosis is not confirm preoperatively, consultation with a rheumatologist is essential.

## REFERENCES-

- 1) Yang, B. and Ni, H.K. (2008) Diagnosis and Treatment of Spontaneous Colonic Perforation: Analysis of 10 Cases. *World Journal of Gastroenterology*, 14, 4569-4572.
- 2) Ni H.-K. (2008) How to Diagnose and Treat Spontaneous Colonic Perforation? *Health & Medicine*.
- 3) Sheikhholeslami, F. (2009) Spontaneous Perforation of Rectosigmoid Colon. *Iranian Journal of Medical Sciences*,
- 4) Kim, E.S. and Brandt, M.L. (2013) Spontaneous Intestinal Perforation of the Newborn.
- 5) Cho, H., Han, H.Y., Chun, T.J., Yu, I.K., Daejon, K.R., Daejeon, K.R. and Daejeon, R. Spontaneous Perforation of the Colon: CT Findings and Clinical Characteristics. *Poster Type: Scientific Exhibit ECR 2012*.
- 6) Kasahara, Y., Matsumoto, H., Umemura, H., Shiraga, S. and Kuyama, T. (1981) Idiopathic Perforation of the Sigmoid Colon in Japan. *World Journal of Surgery*, 5, 125-130. <http://dx.doi.org/10.1007/BF01657857>
- 7) Chen, J.-C., Chen, C.-C., Liang, J.-T. and Huang, S.-F. Spontaneous Bowel Perforation in Infants and Young Child-ren: A Clinicopathologic Analysis of Pathogenesis. *Journal of Pediatric Gastroenterology & Nutrition*, 30, 432-435.
- 8) Novy S, Rogers LF, Kirkpatrick W: Diastatic rupture of the cecum in obstructing carcinoma of the left colon. Radiographic diagnosis and surgical implications. *Am J Roentgenol* 1975, 123:281-286.
- 9) Vaneek VW, Al-Salti M: Acute pseudo-obstruction of the colon (Ogilvie's syndrome): an analysis of 400 cases. *Dis Colon Rectum* 1986, 29:203-210.
- 10) Dennis Gong, Victor Chin, Josephine Woodman 2015 Ogilvie's syndrome with caecal

- perforation post caesarean section [ogmagzine.org.au/19/4-19](http://ogmagzine.org.au/19/4-19)
- 11]. Join H. Albers, Louis L. Smith, Richard Carter. Perforation of the Cecum. *Annals of Surgery* 1956 February; 143(2): 251–255.
  - 12]. Y.J. Chang, D.C. Yan, M.S. Kong, H.C. Chao, C.S. Huang, J.Y. Lai Non-traumatic colon perforation in children: a 10-year review *Pediatr Surg Int*, 22 (2006), pp. 665-669
  - 13]. Soe Lwin, Nina Lau Lee Jing, Haris Suharjono, et al., "Caecal Perforation from Primary Intestinal Tuberculosis in Pregnancy." *Case Reports in Gastrointestinal Medicine*, vol. 2017, ArticleID2173724, 4 pages, 2017.
  - 14]. Rashmiranjan Sahoo et al. Perforated solitary cecal diverticulum: An etiological challenge at emergency Case Report *Journal of Acute Medicine* 6 (2016) 49e51
  - 15]. Fielitz J, Ehler HG: Perforation of the cecum by a toothpick—a rare differential acute appendicitis diagnosis. Case report and review of the literature. *Chirurg* 2000, 71(11):1405-8.
  - 16]. Galanis, I., Dragoumis, D., Kalogirou, T., Lakis, S. and Kotakidou, R. (2010) Spontaneous Perforation of Solitary Ulcer of Transverse Colon. *Indian Journal of Pathology & Microbiology*, 53, 138.
  - 17]. Parish, K.L., Chapman, W.C. and Williams, L.F. (1991) Ischaemic Colitis: An Ever-Changing Spectrum? *Annals of Surgery*, 57, 118-121.
  - 18]. Makki, A.M., Hejazi, S., Zaidi, N.H., Johari, A. and Altaf, A. (2014) Spontaneous Perforation of Colon: A Case Report and Review of Literature. *Case Reports in Clinical Medicine*, 3, 392-397.