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Pseudo-Obstruction Secondary To Viral Etiology – A Case Report.

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Abstract :
Acute colonic pseudo-obstruction also termed as Ogilvie syndrome is rare, with an estimated incidence of 100/100,000 hospital admissions. We report the case of a 45 year old gentleman patient presented with Obstipation features with distension of abdomen and blisters over lower part of abdomen on right side. Plain X-ray and CT scan showed a dilated large bowel. Diagnosis of Acute colonic Pseudo-Obstruction secondary to viral etiology. Conservative management was successful and the patient was discharged uneventfully. Early recognition of this condition may help to avoid unnecessary surgery.

Keywords- *Pseudo-obstruction, Varicella-zoster, Colon*

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I. Introduction-

Acute colonic pseudo-obstruction also termed Ogilvie Syndrome which is characterized by acute colonic dilatation in the absence of a mechanical obstruction. Ogilvie Syndrome is rare, with an estimated incidence of 100/100,000 hospital admissions. ACPO usually affects elderly and comorbid patients; often those with an acute illness on a background of chronic cardiac, respiratory or neurological disease. Infection with Cytomegalovirus, Varicella-zoster virus, Herpes virus are possible risk factors for acute colonic pseudo-obstruction. Bowel obstruction is normally treated with surgery. However, non-mechanical causes of bowel obstruction need to be carefully investigated before considering surgical intervention. This will avoid unnecessary morbidity and mortality associated with the procedure. Though, the association of HZ and intestinal pseudo-obstruction is rare and has received insufficient attention in the literature.

II. Case Report

A 45 year old gentleman presented with non passage of stools and flatus with distension of the abdomen for 4 days and blisters over the lower part of the abdomen and back on the right side for 2 days. On examination- The patient was afebrile and hemodynamically stable. On local examination, Multiple small vesicles over erythematous base on the right side of abdomen involving T11-T12 Dermatome, not extending midline. On systemic physical examination, Abdomen was distended, non-tender, tympanic on percussion with sluggish bowel sounds and no signs of peritoneal irritation. All the hematological and biochemical blood tests were within normal limits. Plain X-ray abdomen showing dilated large bowel loops, CECT (w/a) which revealed dilated Large bowel loops measuring up to 6.7cm, loaded with fecal matter and there was no abnormal Enhancement or growth or stricture. Tzanck smear confirmed the diagnosis of Varicella zoster. Patient was managed conservatively by Nasogastric tube decompression, Nil per oral, IV resuscitation and IV Acyclovir (10 mg/kg). Patient was discharged after 7 days with Oral Acyclovir and analgesics. On Follow-up 2 months later to discharge. In General surgery OPD, Patient had no complaints and he is leading a normal life.

Figure 1 Multiple small vesicles over Right side of the abdomen.

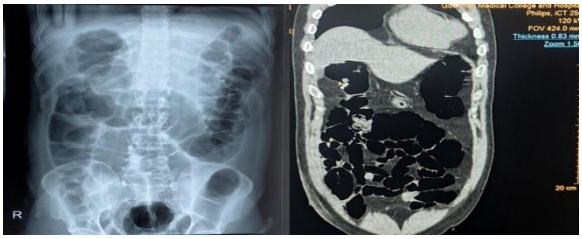

Figure 2a, Plain X-ray Abdomen showing large bowel dilatation.
Figure 2b, CECT (w/a)- Dilated Large bowel loops measuring up to 6.7cm, loaded with fecal matter. There was no abnormal Enhancement or growth or stricture.

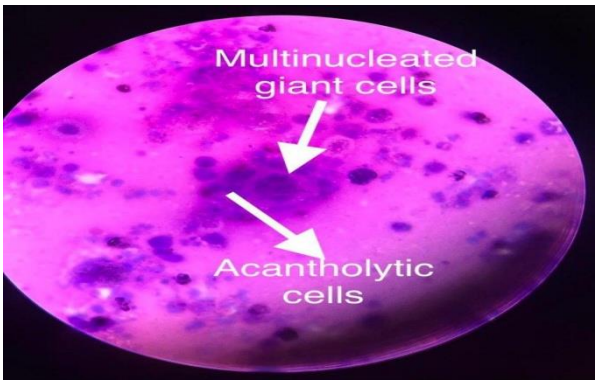

Figure 3, Tzanck smear showing Multinucleated giant cells and Acantolytic cells.

III. Discussion

Primary infection with VZV usually takes place in early childhood with fever and diffuse maculopapular rash as common clinical features. Then, the virus goes dormant. Reactivation of Herpes virus in Enteric ganglia may result in sympathetic autonomic neuritis presumably diminishing colonic sympathetic supply. Dysregulation of Colonic autonomic innervation is hypothesized to play an important part. The sympathetic fibers to Colon originate in the paravertebral "chain" ganglion, segments from the T12 to L4 levels of the spinal cord, and are conveyed to the colon via arterial arcades of the superior and inferior mesenteric vessels. In our case there's involvement of T11 & T12, possibly explaining stimulation of T12 segment causing sympathetic stimulation of Colon leading to Paralysis of colon. Initial evaluation should include a routine blood tests, Plain abdominal X-ray. A water-soluble contrast enema can reliably distinguish between a mechanical obstruction and pseudo-obstruction. Currently, however, abdominal CT is typically utilized as the standard confirmatory test. Treatment options include supportive care, this includes nothing by mouth (NPO), correction of electrolyte disturbances, and Insertion of a nasogastric tube and rectal tube for decompression may be of help. Neostigmine is given as a 2 to 2.5 mg IV bolus injected over 3 to 5 minutes and results in significant parasympathetic stimulation causing strong colonic peristalsis that usually leads to subsequent flatus and bowel movements. Conservative measures along with antiviral therapy have proven to be effective when dealing with cases of intestinal pseudo-obstruction secondary to HZ infection. From the surgical perspective, intestinal pseudo-obstruction ought to be considered when dealing with non-obstructive (adynamic) conditions of the digestive tract associated with HZ infection; since early recognition may help to avoid unnecessary surgery.

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