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Pseudo Intestinal Obstruction Treated by Acupuncture – A Case Report

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Abstract

Intestinal obstruction is a mechanical or functional obstruction of the intestines which prevents the normal movement of the products of digestion¹. Either the small bowel or large bowel may be affected². Traditional Chinese Medicine like Acupuncture has been improving human health for a long time. We report a case of Pseudo Intestinal Obstruction of a 38 years old female who received acupuncture treatment as an alternative to Laproscopic Surgery. She was relieved of the symptoms of abdominal pain, nausea, vomiting and high blood pressure. The acupoints used are mentioned and should be considered in a case of imbalance in sympathetic and parasympathetic system. Application of acupoints helps to stimulate the vagus nerve (parasympathetic) and relieves the overstimulation of sympathetic system.

Keywords: Acupoints, Acupuncture, Gastro-intestinal Disorder, Pseudo Intestinal Obstruction, Sympathetic overstimulation

1. Introduction

Acute intestinal obstruction occurs when there is a disruption in the forward flow of intestinal contents. This obstruction can occur at any point along the length of the gastrointestinal tract, and varied clinical symptoms are noticed based on the level of obstruction. Most commonly intestinal obstruction can be caused by intra-abdominal adhesions, malignancy, or intestinal herniation. The clinical scenario includes nausea and emesis, colicky abdominal pain, and a failure to pass flatus or bowel movements. The classic physical examination findings of abdominal distension, tympany to percussion, and high-pitched bowel sounds suggest the diagnosis. Radiologic imaging can confirm the diagnosis, involving Ultra sonogram and Computed Tomography studies.

Management of uncomplicated obstructions includes fluid resuscitation with correction of metabolic derangements, intestinal decompression, and bowel rest. Evidence of vascular compromise or perforation, or failure to resolve with adequate bowel decompression is an indication for surgical intervention³.

Acupuncture is a traditional Chinese medicine treatment and has been practiced empirically in China for around 4000 years. Acupuncture is accomplished by inserting the tips of thin, stainless steel needles on specific points (called acupoints) through the skin. Conventional acupuncture or called "manual acupuncture" involves the manipulation of the inserted needles by hand, such as lifting, thrusting, twisting, twirling or other complex combination. It has been confirmed that acupuncture or Electro Acupuncture

(EA) has therapeutic effects for postoperative dental pain, postoperative and chemotherapy-induced nausea and vomiting4. During the last decade, a considerable number of studies have investigated the efficacy of EA for the treatment of functional gastrointestinal disorders. Human and animal studies were conducted to explore the effects of EA on gastrointestinal secretion, sensation, motility and myoelectrical activity⁵.

2. Case Presentation

A 38 years old woman complained of severe lower abdominal pain with vomiting for one day. She complained of stress at her work place for the past three days and did not have past episodes of abdominal pain and vomiting. After investigation with Xray, ultrasound and Computed Tomography (CT scan), the findings lead to diagnosis of Sub-acute Intestinal Obstruction (Figure 1-3).

There was past history of Caesarean Section so mechanical obstruction due to adhesions from the previous surgical scar could be a possible cause for obstruction. Obstruction was noticed in the small intestine in Ultrasound scan i.e. lower part of ileum with dilatation of proximal loops of jejunum and 3rd and 4th part of Duodenum, there was no obstruction in large intestine. In follow up contrast CT scan after two days, another radiologist further diagnosed as Pseudo - Obstruction

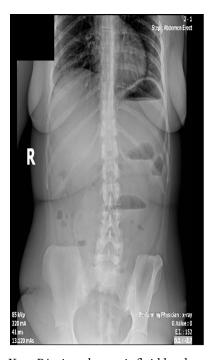


Figure 1. Xray PA view shows air fluid levels.

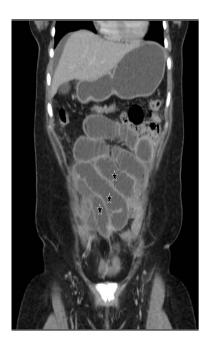


Figure 2. CT scan coronal section shows dilated bowel loops (black stars).

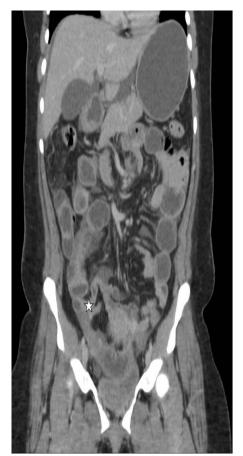


Figure 3. CT scan coronal section shows site of intestinal obstruction (white Star).

with no evidence of adhesion or bands around the constricted loop and no inner mucosal changes like polyps, Ulcerative Colitis and Crohn's Disease.

The case was managed with two days of conservative management i.e. Nil Per Oral (NPO) with Ryles tube insertion and enema given for intestinal decompression and bowel rest (Figure 4).



Figure 4. Xray PA view shows no air fluid levels after intestinal decompressed with insertion of Ryle's tube.

After that, she was given oral fluids then semisolids which she couldn't tolerate and started vomiting 2-3 episodes per day. The vomitus was bilious (green coloured) with few food particles. She also passed flatus and stools but still the vomiting had not reduced. She was also severely hypertensive with her BP ranging from 200/130-140/100mm of Hg. She lost 5 kilograms weight within one week and had no appetite.

After eight days of conservative management, the team of doctors suggested for repeat contrast CT to confirm the persistence of obstruction and proceed for explorative Laparoscopy to identify the reason for the obstruction.

However one of the gastroenterologists referred to Acupuncturist, the patient was given NuxVomica Homeopathic medicine (one dose) and then acupunctures two sittings on two consecutive days.

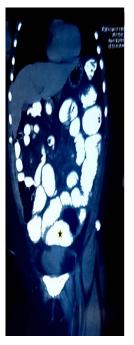
The two sessions of treatment focused on using the acupoints to stimulate the qi in the upper and lower abdomen and to promote bowel movements. The following acupoints applied are mentioned with their indication in (Table 1).

The patient slept well after the second Acupuncture sitting done next day and found relief from all her symptoms. Her Blood Pressure became normal without any medication, Belching, nausea, Vomiting stopped

Table 1. Acupuncture points with their benefits and details of sittings

Sl. No.	Name of Acupuncture point	Benefit	Day 1 12th Nov.	Day 2 13th Nov.	Day 3 15th Nov.	Day 4 16th Nov.	Day 5 17th Nov.
1.	BAIHUI Du 20	Stress & Insomnia	+	+	+	+	+
2.	LI 11-	Tonification point, Immunity point, Homeostatic point- Hypertension & Stress	+	+	+	+	+
3.	Zhigou TW 6	Vomiting & sudden turmoil disorder	+	+	+	+	+
4.	LI 4	Effective Analgesic Point –Hyper-tension, Absence of sweating & Dysenteric disorder	+	+	+	+	+
5.	Neiguan P6	Calm the spirit	+	+	+	+	+
6.	ZHONGWAN Ren 12	Nausea, Stomach reflux, vomiting, Abdominal distention, Anxiety & over thinking,	+	+	+	+	+
7.	ST 21	Epigastric pain, Abdominal distension, Vomiting, poor appetite & undigested food	+	+	+	+	+
8	Sp 15	Abdominal Pain of lower Abdomen, diarrhea & constipation	+	+	+	+	+
9.	Zusanli ST 36	The command point for disorders of the abdomen- Tonification point, Homeostatic point, immunity point- Digestive disorders, Nausea, Vomiting, poor appetite & hyper-tension	+	+	+	+	+
10.	QUQUAN Liv 8	Diarrhea containing un-digested food & extreme pain of the body	+	+	+	+	+

completely and she developed good appetite. Next day, she had repeat contrast CT scan in which all bowel was free from obstruction and some dilatation of bowel was noticed (Figure 5&6). There was delay in emptying time of intestinal contents.



Contrast CT scan coronal view shows filling of dye in the rectum (black star) indicating no obstruction and free flow of bowel contents.



Contrast CT scan Sagittal section shows filling Figure 6. of dye in the rectum (black star) indicating no obstruction and free flow of bowel contents.

The patient continued for another three sittings of Acupuncture settings consecutively after discharge. Following one year of treatment, the patient did not have any recurring symptoms.

3. Discussion

It is estimated that between 11 and 43 per cent of patients suffering with gastrointestinal disorders use Complementary Alternative Medicine (CAM) therapies which are beneficial to them⁶. Pseudo Intestinal Obstruction is called as Ogilvie syndrome: acute pseudo -obstruction of the colon in severely ill debilitated patients but in this case, obstruction was seen in the small intestine. This case report suggests that acupuncture may be a treatment option for Pseudo-Intestinal Obstruction (reason for obstruction not known by CT scan) with manifestation of vomiting and severe lower abdominal pain.

The Western diagnosis of Intestinal obstruction relies on the symptoms of abdominal pain and bowel patterns. Traditional Chinese medicine on the other hand emphasizes the importance of a wide spectrum of signs and symptoms presented by the individual patient, and are thus well suited to the treatment of this clinically heterogeneous condition⁷.

Acupuncture at PC6 accelerates bradycardia and decelerates tachycardia, whereas acupuncture at ST 36 suppresses hyperfunction (as in diarrhea) and stimulates hypofunction (as in constipation) of the gut motility8. Acupuncture has been believed to improve the vagal tone (beyond deep, slow breathing)9. Vagus nerve, the 10th Cranial Nerve which runs from the neck to the abdomen and is parasympathetic control of various organs it is in charge of turning off the "fight or flight reflex" and is suspected to be key to well-being. Stimulating the vagus nerve activates your relaxation response, reduces heart rate and blood pressure¹⁰.

With regarding to gastric motility functions, it seems that EA enhances gastric accommodation, slow waves, contractions and emptying; suggesting a therapeutic potential for functional dyspepsia and gastroparesis. Little is reported on the effect of EA on small intestinal motility and therefore its role for treating patients with intestinal motility disorders has not been established. Similarly, not much is known on the effect of EA on colon motility and the therapeutic effects of EA for common functional bowel disorders, such as Inflammatory Bowel Disease (IBS), constipation and diarrhea, are not conclusive^{11,12}. Various theories have been discussed and changing regarding the mechanism of Acupuncture like Meridian-Cortex-Viscera correlation hypothesis (Oldest), acupoint- brain- organ model and morphogenetic singularity theory (latest)¹¹.

Herbal or Homeopathic Medicine, which is often used alongside acupuncture for treatment of GI disorders was utilized and found beneficial in this case¹³. In conclusion, acupuncture or Electro Acupuncture (EA) is able to alter gastrointestinal motility functions and improve gastrointestinal motility disorders. However, more studies are needed to establish the therapeutic roles of Electro Acupuncture in treating functional gastrointestinal diseases, such as Gastro-Esophageal Reflux Disease (GERD), functional dyspepsia, IBS, constipation and diarrhea7.

Given the current limited treatment options for Pseudo Intestinal Obstruction, this case study shows promise of benefit of acupuncture to conventional treatments like surgical options and its complications.

4. Disclosure Statement

All authors have contributed to the paper and have never submitted the manuscript, in whole or in part, to other journals.

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6. Conflict of Interest

None.

7. References

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