

# **RESEARCH ARTICLE**

# OGILVIE SYNDROME AFTER EMERGENCY CESAREAN SECTION: A CASE REPORT

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## Manuscript Info

### Abstract

*Manuscript History* Received: 18 July 2022 Final Accepted: 20 August 2022 Published: September 2022

*Key words:-*Acute Colonic Pseudo-Obstruction Syndrome, Ogilvie's Syndrome, Neostigmine, Colonic Exsufflation, Cecostomy, Cesarean Section, Pregnancy Ogilvie's syndrome describes an acute colonic pseudo-obstruction (ACPO) consisting of dilatation of part or all of the colon and rectum without intrinsic or extrinsic mechanical obstruction. It often occurs in debilitated patients. Its pathophysiology is still poorly understood. Several theories have been incriminated: nervous, vascular, hormonal, medicinal, metabolic disorder, infectious...Since computed tomography (CT) often reveals a sharp transition or "cut-off" between dilated and non-dilated bowel, the possibility of organic colonic obstruction must be excluded. If there are no criteria of gravity, initial treatment should be conservative or pharmacologic using neostigmine; decompression of colonic gas is also a favored treatment. Surgery should be considered only as a final option if medical treatments fail or if colonic perforation is suspected. We report a case of colonic pseudo-obstruction (or Ogilvie syndrome), after caesarean section, treated medically and by colonoscopicexsufflation.

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### Introduction:-

Ogilvie syndrome, or acute colonic pseudo-obstruction (ACPO), is a rare clinical entity. It corresponds to a dilatation of all or part of the colonic frame and rectum without intrinsic obstacle or extrinsic inflammatory process; this definition excludes mechanical dilatations upstream of an organic obstacle, those occurring in the context of severe acute colitis, ischemic or cryptogenic (toxic megacolon and reflex ileus accompanying a peritonitis). Its physiopathology is based on the paralysis of the muscularis of the colon which is passively distended, without any increase in endoluminal pressures. In 1948, Sir Ogilvie described two observations of colonic dilatation in patients with neoplastic infiltration of the celiac and mesenteric plexuses [1]. Rarely idiopathic, it occurs most often in patients with severe visceral diseases or in recent surgeries (especially thoracic or pelvic surgery). It is a rare presentation observed occasionally in post-partum, especially following caesarean sections. Difficulties in diagnosis often lead to delays in initiating treatment, which greatly increases complications, including caecal ischemia, perforation, sepsis and death. We report a case of colonic pseudo-obstruction (or Ogilvie syndrome), after caesarean section, treated medically and by colonoscopic sufflation.

### **Observation:-**

Mrs. F is a 38-year-old second pare, with no notable pathological history, apart from a first time delivery by cesarean section in 2017 with simple sequelae. Caesarean section for scarred uterus and clinically suspicious shrunken pelvis, which took place under general anesthesia. The patient presented at first duodenal portion a diffuse

**Corresponding Author:- H. Meyiz** Address:- Service d'hépato-gastro-entérologie, CHU TTA,Hôpital Mohamed VI,Université Abdelmalek Saadi. abdominal distension progressively worsening [Figure 1], the clinical examination finds a patient apyretic, hemodynamically and respiratory stable, with a distended abdomen, tympanic, epigastric tenderness was noted and at the rectal feel the rectal ampulla empty. Abdominal CT scan showed significant distension of the gallbladder and the right and transverse colon, stopping at the left colonic angle with an image of hydroaerosic levels [Figure 2]. Biologically she presented with hyponatremia at 131mEq/l and hypocalcemia at 76mg/l. The patient benefited from a good rehydration and correction of the hydro-electrolytic disorders. Medical management with neostigmine was considered without clinical improvement. This prompted an urgent colo-insufflation and the insertion of a rectal probe, with a good clinical evolution without recurrence.



Figure 1:- Abdominal distension at Day 1 post caesarean.



Figure 2:- Scanographic aspects of colonic dilatation.

# **Discussion:-**

Ogilvie syndrome is a rare entity who'sthe etiopathogeny is currently not completely elucidated, its genesis is multifactorial. Several theories have been incriminated. The nervous theory described as early as 1948 by Ogilvie, which suggests a disturbance of the vegetative innervation of the colon [1]. The vascular theory proposed by other authors [2,3] is based on the decrease in splanchnic perfusion (hypovolemia, obliterating arteriopathy); hypoperfusion would predominate in the area between the territories of the two superior and inferior mesenteric arteries, also called Griffiths' zone, and supports the notion of cut-off. Hormonal theories implicate prostaglandins E [4,5] which stimulate the circular muscle layer of the colon. Neurotropic treatments are often implicated because of their anticholinergic effects [6]. In addition, opiates [7] and other long-term "colotoxic" drugs (sedatives, tricyclic antidepressants, clonidine, phenothiazines, calcium channel blockers and antiparkinsonian drugs) [8,9]. Disturbances of colonic motricity have also been linked to metabolic disorders causing neuromuscular conduction disorders (hypokalemia, hyper-uremia) [10]. A reactivation of the varicella-zoster virus (VZV) in the enteric ganglia has been incriminated [11]. The clinic is dominated by a major abdominal meteorism contrasting with a good clinical tolerance and a general state that remains unchanged for a long time [10]. The finding, when present, of major distension of the rectal ampulla to the touch, associated with colonic distension, is a sign of colectasis. An

inflammatory syndrome (hyperthermia, hyperleukocytosis, elevated CRP) as well as signs of peritoneal irritation should suggest colonic perforation. The main differential diagnoses such as ceocal or sigmoid volvulus and intrinsic or extrinsic colonic obstructions must be eliminated. The main differential diagnosis is represented by paralytic ileus [12]. The clinical argument is the absence of BHA in this syndrome, whereas they are abnormally increased in Ogilvie. An unprepared abdominal X-ray (UXR) is the first-line paraclinical examination [13], and shows major colonic gas distension, most often segmental. The persistence of colonic hustrations and the inconstancy of the hydroaeric levels are signs in favor of a functional occlusion. The barium enema has long been used to search for a possible mechanical obstruction. Its osmotic effect sometimes leads to the removal of an obstruction. It is contraindicated in cases of suspected colonic perforation [14]. Its interest is now less than that of scannography. Abdomino-pelvic CT with injection of contrast medium is the reference examination: its sensitivity is 96% and its specificity 93%. It confirms the proximal dilatation of the colon and the absence of intrinsic or extrinsic organic lesions. The evolutionary risk is mainly dominated by colonic perforation, the incidence of which is 15 to 20% [15,16] with a mortality of 40 to 50% [15]. However, the colon tolerates major distension well and this perforative risk is often overestimated since it is a colonic distension without intraluminal hyperpressure[17]. The finding of pneumoperitoneum, intraperitoneal fluid effusion or parietal pneumatosis in the distended colon on the CT scan should raise the suspicion of perforation and impose an emergency laparotomy. Although the maximum tolerable cecal diameter is a source of debate, all authors agree that it correlates with the risk of perforation. Most series use an upper limit of 9 cm [19], in contrast to Vanek, for whom the maximum tolerable caecal diameter is 12 cm, because approximately one quarter of patients perforate beyond this limit [15]. Death is more related to decompensation of underlying visceral defects than to the risk of secondary colonic perforation. The poor prognostic factors are age, ischemia, occurrence of ceocal perforation and delay before colonic decompression of more than 6 days [15,19]. There are several therapeutic components to remember. Conservative treatment is the treatment to be instituted in first intention as soon as the diagnosis is evoked and in the absence of colonic perforation. It is currently well codified by the 2010 guidelines of the American Society for Gastrointestinal Endoscopy (SAGE) [8]. Conservative treatment alone is sufficient in 70% of the 1027 cases in the literature review by Wegener and Börsch[20] but, given the increased risk of perforation beyond 6 days, its implementation should not exceed 3 days [8]. The pharmacological treatment, of which intravenous neostigmine is the main agent, leads to a lifting of the parasympathetic block resulting in the resumption of colonic motricity[21,22]. Moreover, the administration of this treatment, due to the risk of bradycardia, requires a medical presence during the injection with cardiotensional monitoring for 30 minutes and injection of atropine available in case of adverse effect. Other treatments have been discussed and their efficacy evaluated in randomized trials such as polyethylene glycol (PEG) [23], gastrograffin enema [24], erythromycin [25]. Exsufflation colonoscopy can be considered as the first "invasive" procedure to be performed. The rate of failure or recurrence of symptoms is more than 30%, but the placement of a rectal probe during the procedure improves this rate [26]. Other procedures for colo-exsufflation can be considered. Percutaneous cecostomy under radiological or endoscopic control has been reported in the literature but cannot be recommended in routine practice [27]. Percutaneous endoscopic colostomy (PEC) is a cologuled percutaneous caecostomy but its complication rate is 40%, namely wall abscess, bleeding, hematoma, perforation, stoma retraction [28]. Image guided percutaneous caecostomy (PCC) [29] is a percutaneous decompression by puncture of the caecum under CT guidance. The indications for surgery are based on the failure of the conservative therapies already mentioned or on the existence of clinical or radiological signs suggestive of a colonic perforation [9]. Three types of interventions can be proposed: colostomies, trans-anal recto-colic intubation by a multiperforated tube (Faucher) during an exploratory laparotomy, total or subtotal colectomy with or without restoration of continuity.

#### **Conclusion:-**

Post-caesarean Ogilvie syndrome is a rare eventuality, which may lead to caecal perforation in the absence of effective treatment, with the formation of stercoral peritonitis with a very poor prognosis. This pseudo colonic obstruction is a diagnosis of exclusion, made after having eliminated a postoperative paralytic ileus and a mechanical occlusion. The diagnosis is made early by performing an unprepared X-ray of the abdomen or even an abdominal CT scan with contrast injection, which is currently the reference examination. Treatment combines medical care with other more invasive measures, including surgery in case of complications such as caecal perforation.

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