

Management of Accidental Traumatic Digestive Perforation After Ingestion of Medicinal Plant Indigenat, About 4 Cases, at the Amissa Bongo Regional Hospital Center in Franceville Gabon

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Abstract

Digestive perforations are common in our region. Accidental digestive perforations occurring in traditional practitioners become recurrent and are a public health problem. Prolonged stays in the indigenate cause serious visceral lesions. The authors report four cases of perforations after ingestion of medicinal plants to the indigenate. The objective was to study the causal agent, the clinic, the paraclinical and the therapeutic strategy.

Keywords: Perforation; Digestive; Medicinal Plant; Laparotomy

Introduction

The populations consult in traditional medicine in the health region of Haut Ogooué, for first aid. However, some patients are exposed to accidental digestive perforations and visceral complications that can affect all organs. The low prevalence and scarcity of scientific publications on these accidents justified our study. The awareness of the public and all traditional practitioners, of the dangers caused by the ingestion of foreign bodies, makes it possible to act at the prevention stage. We report through four observations, cases of accidental traumatic digestive perforations to identify the causative agent, clinic, paraclinical and treatment.

Observation 1

This was a 70-year-old patient who had been admitted for diffuse abdominal pain that had been evolving for ten days. He

would have stayed eight days with the traditional practitioner. Two days after ingestion of a potion (bottle containing medicinal plants), there was a brutal stab wound pain in the left flank. On examination there was an alteration of the general condition, a fever 39.3°C, an abdominal contracture. Abdominal ultrasound showed a peritoneal effusion of low abundance. The biological assessment noted neutrophil hyperukocytosis, blood type O positive, functional renal failure. We had carried out a laparotomy, which highlighted a perforation of the sigmoid colon, then removal of a foreign body (piece of wood), finally suture of the pertuis, washing and drainage. The suites were simple after a stay in intensive care.

Observation 2

This was a 38-year-old patient who had been admitted for abdominal pain evolving for five days, following his stay with the

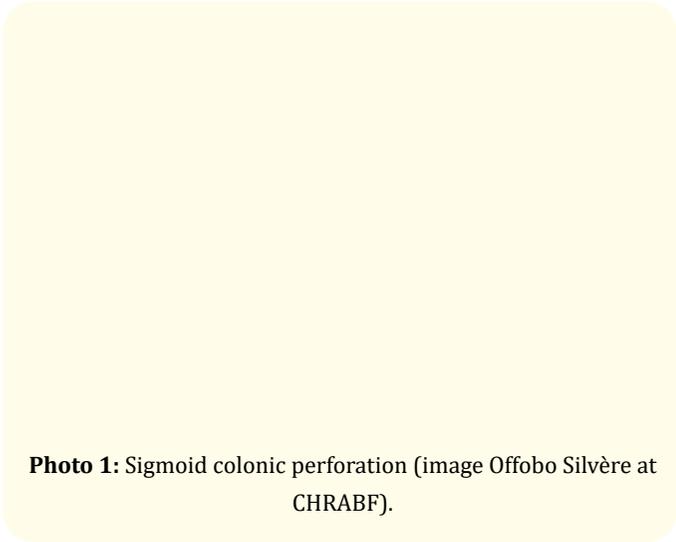


Photo 1: Sigmoid colonic perforation (image Offobo Silvère at CHRABF).

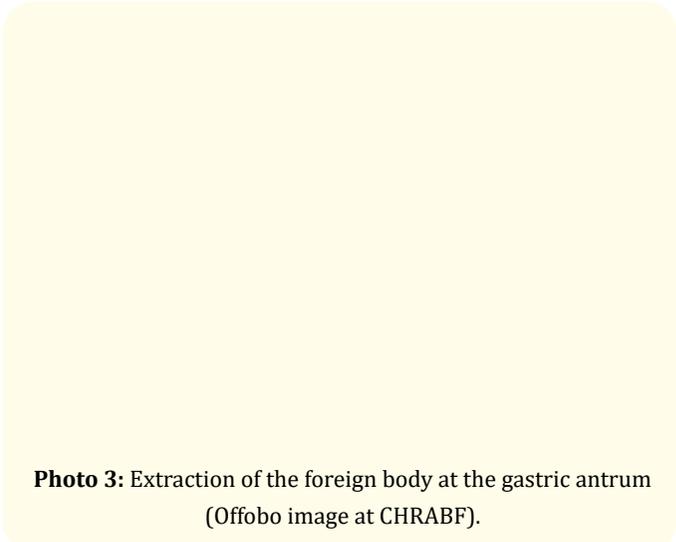


Photo 3: Extraction of the foreign body at the gastric antrum (Offobo image at CHRABF).

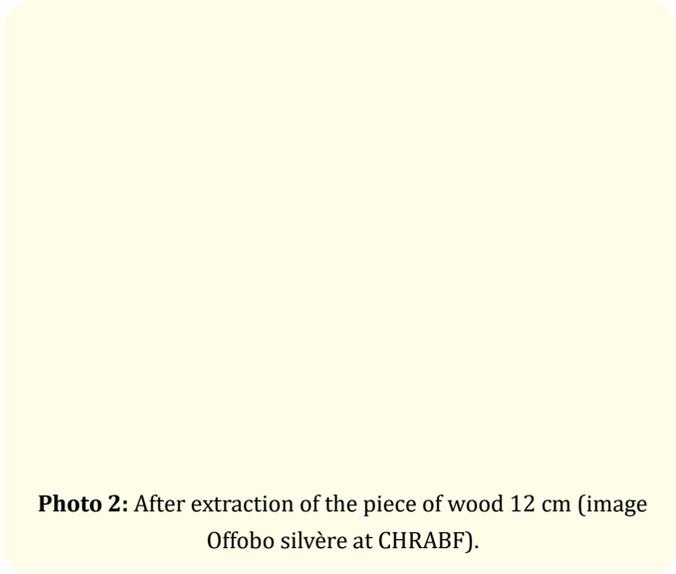


Photo 2: After extraction of the piece of wood 12 cm (image Offobo silvère at CHRABF).

traditional practitioner. He would have drunk a bottle of medicinal plant. On arrival there was an alteration of the general condition, an anemic syndrome, an infectious syndrome. The clinical examination noted abdominal contracture. The ultrasound had shown abundant peritoneal effusion. The biological assessment noted neutrophil hyperukocytosis, positive blood type B, hepatic insufficiency, and functional renal failure. We had carried out a laparotomy, which put in ventagastric perforation measuring 3 cm in diameter, then removal of a foreign body (piece of wood 7 cm), finally suture of the pertuis, washing and drainage. The suites were simple after a stay in intensive care.

Observation 3

He was a 74-year-old patient from Moanda who had been admitted for diffuse abdominal pain that had been progressing for several days. He had a history of stroke three years ago. He would have stayed three days with the traditional practitioner. Four days after ingestion of a potion and mastication (bottle containing medicinal plants), there was a brutal stab wound pain of the epigastric region. On examination there was an alteration of the general condition, arterial hypertension 17/10, fever 39.5 C, abdominal contracture. Elsewhere there was an abdominal thoraco dermatosis. Abdominal ultrasound showed a peritoneal outpouring of great abundance. The biological assessment noted neutrophil hyperukocytosis, microcytic anemia, positive blood type B, functional renal failure. We had carried out a laparotomy, which put in ventagastric perforation measuring 3 cm in diameter, then removal of the foreign body (grains of native pepper), finally suture of the pertuis, washing and drainage. The suites were simple after a stay in resuscitation of ten 10 days.

Observation 4

This was a 45-year-old patient who had been admitted for abdominal pain that had been progressing for four hours following her stay with the traditional practitioner. She has a history of balanced diabetes on oral anti-diabetics. She would have drunk a bottle of medicinal plant. On arrival there was gynoid obesity, agitation, and cold sweats. The clinical examination noted

abdominal contracture. The ultrasound had shown abundant peritoneal effusion. The biological examination was normal, a blood type O positive. We had carried out a laparotomy, which put in evidence perforation of the anterior face of the gastric laceration of 5 cm in diameter, then removal of a foreign body (piece of wood 11 cm), finally suture of the pertuis, washing and drainage. The suites were simple after a stay in intensive care.

Photo 4: Extraction of a piece of weight by gastric perforation (offobo silvère image).

Discussion

The ingestion of foreign bodies in adults is a rare occurrence. It represents only 5.2% of abdominal emergencies and only 0.3% of emergency hospitalizations of any special kind. It is seen in children [1]. Indeed, children represent 80% of the population at risk with a peak of frequency in the age group between 6 months and 6 years which represents 70% of cases of ingestion [2]. Many factors, such as dietary diversification at the age of 6 months or the psychomotor development of the child with a need to explore his environment [3]. A comparison of our series and a literature review shows that adult patients are victims of accidental foreign body ingestion of medicinal plants. In the series of Yasser [4] and in that of Sahota [5], the average age is 28 and 32 respectively. As for the Monasteries, the average age in adults is 70 years. The absence of natural teeth and or the wearing of dentures, seem to be factors favoring the ingestion of foreign bodies at this age without distinction of sex [6]. Ingestion of foreign bodies in adulthood frequently occurs in a particular field (prisoners, patients with psychological disorders or alcoholics) [11]. In our series, patients followed by traditional practitioners ingest medicinal plants

that perforate the digestive tract. The percentage is 90% in the Sahota series [5] and is only 10% in the Selivanov series [12]. In the Shen series, 8% of the victims of foreign body ingestion had abnormalities of the gastrointestinal tract: esophageal cancer (33%), esophageal stenosis (23.9%), diverticulum (15.9%), post-gastrectomy (11.4%), hernia hiatal (10.2%) and achalasia (5.7%) [13]. Foreign bodies from the digestive tract are discovered in the esophagus in 80% of cases, more rarely in the stomach (15%), pylorus, proximal ileum, ileocecal valve and anus [14-20]. Foreign bodies more than 2 cm thick and more than 5 cm long have their main in the stomach [21]. Perforations are exceptional [13,23-25]. Sharp foreign bodies are more aggressive and initial or secondary perforations to difficult extraction or repeated contractions and swallowing attempt have been reported [22]. Stops, dentures or bone splinter carry in addition to the perforative risk, an additional infectious risk and can be the cause of mediastinitis, cellulite, a paraoesophageal abscess or hepatic or appendicular abscess [26]. Eso vascular fistulas have been brought with the aorta especially [27,28], the carotids, the artery sous clavière or the azygos vein [23]. Ingestion of batteries is quite common in children and adults. The latter is the most corrosive [29]. Diagnosis is more difficult in the child seen than the interrogation is informative in only 5% of cases [11]. Ingestion of foreign bodies can go unseen, revealed by complications ranging from simple impaction to the lightning table of digestive perforation [7,16,30-41]. In our series these are four accidental cases after ingestion of medicinal plants. The voluntary ingestion of foreign bodies is usually seen in prisons, psychiatric patients [1] or in the context of a suicide attempt [43,44]. Rousseau reports the case of an intragastric foreign body secondary to the establishment of a nasogastric tube in a patient aged 67 years [4]. In children, we find coins (two-thirds of cases), pen caps, pawns, or toys with a diameter of less than 3 cm. While in adults, we most often find food foreign bodies (two-thirds of cases), bones, fish stops (40% in Asia), more rarely larger foreign bodies (dentures 4%) or sharper (needles, razor blade, safety pins, tooth picks.) or button cells whose local and general toxicity are established [1]. Finally the phenomenon, of body bagger syndrome, observed among drug traffickers who try to cross borders by ingesting packages of cocaine or other drug [6]. Bezoars are common in edentulous subjects or subjects with anatomical abnormalities. They may be trichobezoars [47], phytobezoars or lacto bezoars (in premature infants). In our series, these are pieces of wood (tree bark, mixed

with wood). The comparison with the literature review shows a predominance of poisons stops in the Kpemissi [48] and kamath [49] series, bones in the Iseh [7] and Selivanov [13] series and food foreign bodies in Shen's [2] and Goh[9]. Patients consult for a real or supposed ingestion in the first 24 hours in 70% of cases but the notion of ingestion may be unknown. This delay can go to a few months [50,51] or even several years [7,52]. In Lascombe's study of 122 cases of foreign body of the esophagus [22], with a delay in ingestion to admission varying from few hours to several weeks. In our series the delay was five days and only one case after one hour. Ingestion of foreign bodies leads to retrosternal pain, odynophagia, dysphagia, hyper sialorrhea, epigastria, digestive hemorrhages [32,40] and sometimes vomiting for large obstructive objects [46]. Nevertheless, it can be completely asymptomatic [5,53]. In our series, all patients were symptomatic at admission. This can be explained by the late consultation period which was longer than one day. Complications can sometimes be generative of ingestion [50,54-56]. Indeed, peritonitis reveals 14% of cases in the series of B. Rajeb [15], 3% in the series of Selivanov [13], 2.5% in that of Yasser [4]. Other revealing complications have been described in the literature such as an aorto-esophageal fistula [27,28], mediastinitis or liver abscess [31]. In our series, all patients were in acute peritonitis.

X-rays of the chest of the front, neck face and profile are systematically essential [1]. But prefer endoscopy from the outset for both diagnostic and therapeutic purposes [53]. In fact, out of a series of 2394 cases at Quenn Mary Hospital in Hong-Kong, only 15% of foreign bodies were radiologically visible [22]. Standard X-rays taken in our patients have found pneumoperitoneum. Also the ultrasound performed in our patients has objectified digestive perforation and perinatal effusion in all cases. The scanner is very effective in detecting radio-transparent foreign bodies such as fish stops or chicken bones with a sensitivity of 100%, a specificity of 94% and a positive predictive value of 97% and to detect associated inflammatory or abscessal lesions. The transit oesogastroduodéal, currently, is less and less used in the diagnosis of the ingestion of foreign bodies, because overhung by endoscopy. Fibroscopy for diagnostic purposes is practiced from the outset by some authors, and very often provides missing information. Fibroscopy has not been performed in our patients. Perforation is when the foreign body ingested is by its shape or its vulnerable nature. But, it can be an accidental during an extraction by instrumental maneuvers: 1%

in the Selivanov series [13] and 4% in that of Sahota [5]. Perforation can interest the entire digestive tract with a high frequency when the foreign body has passed through the stomach and reaches the level of the hail (15 to 30%) [6]. In our series, the digestive tract was perforated. The obstruction can be an obstruction of the intestinal lumen [19,20] or a volvulus especially in children [18]. Fistulas especially complicate the sharp foreign bodies of the digestive tract and neighboring organs such as an aorto-esophageal fistula [27,28], a gastric broncho fistula [55], a tracheal esophageal fistula [7]). It can be towards the cervical spine reveting by spondylodiscitis, in the bronchi with a picture of pulmonary abscess, in the pericardium with a table of pericarditis [22], in the mediastinum with a table of mediastinitis [5] or in the pancreas with a picture of acute pancreatitis [17]. But the migration can be in the opposite direction, Yalçim reports the case of a 10-month-old infant, victim of a migration from a pin of your back to the stomach. The presence of an esophageal foreign body for more than 24 hours is the major risk factor for potentially fatal indulgences [27,28,56]. In case of immediate non-extraction, 24 hours monitoring is desirable because only 22% to 37% of objects spontaneously pass into the stomach in less than 24 hours. As for gastric foreign bodies, they are less urgent to remove [48]. The therapeutic strategy depends on the size of the foreign body, its contours, the material it, the anatomical situation of the blockage and the state of the patient at the time of the infection. According to Letard [11], ingested foreign bodies are evacuated spontaneously in 80 to 90% of cases; in 10 to 20% they require non-surgical extraction and for less than 1% the use of surgery. High therapeutic endoscopy extraction accounts for only 3.5% of all estrogen-induced endoscopies. According to a survey carried out in 2001 by the French Society of Digestive Endoscopy (SFED), only 1700 gastroscopies were performed for foreign body extraction out of 1100000 or 1.5‰ of upper digestive fibroscopies. Endoscopic extraction is also indicated before a foreigner bodie with an occlusive risk: diameter greater than 2.5 cm for coarsely round objects or those whose length is greater than 5 cm for elongated objects [51]. The history of abdominal surgery or Crhon's disease is for some authors an indication for endoscopy. Curarization allows a greater relaxation of the upper sphincter of the esophagus. A conservative attitude is justified since the majority of foreign bodies pass spontaneously and without complications in 80 to 90% of cases [11,13]. It is based on rigorous radio clinical monitoring. It is generally indicated in asymptomatic patients, without obvious or latent complications and with foreigner bodie

whose dimensions and configuration in space are compatible with natural elimination [10]. Observation with diet for a maximum of 24 hours is recommended in patients with a blocked object in the esophagus. After this time, the object must be removed. Monitoring of patients who have ingested a battery includes an abdominal X-ray every 3 to 4 days; anti-secretory treatment may be prescribed to reduce the risk of corrosion [23]. The presence of a sharpened foreign body leads to the hospitalization of the patient and his diet due to a high risk of perforation, especially in the ileocecal region (15-35%) [1]. Radio-clinical monitoring is adopted according to Selivanov's results [13]. Pavlidis, Meanwhile, reports the 100% success of adopted surveillance in 92% of its patients [10]. For Vagner, 91% of spontaneously eliminated foreign bodies have a length of less than 8 cm [8]. Apart from stopping the progression of the foreign body, other complications may require the intervention of surgery, including perforation of the digestive paroi. In our series, all patients present with peritonitis by perforation at admission. Surgery is indicated for an acute complication namely a digestive perforation, an occlusion, or a hemorrhagic vascular lesion. In our series, all patients are operated on urgently. These are the patients admitted in a frank table of peritonitis. In the Vagner's series [8], 61% of patients are admitted and operated on within less than 6 hours. At the level of the cervical esophagus, esophagotomy by left cervicotomy is preferable. However, a straight cervicotomy has been described in a case of perforation of the esophagus to the posterior part of its upper third [22]. In international series, laparotomy is performed in all patients. Noparoscopy for foreign body extraction is described in the literature at the limit of our knowledge. The comparison of our series and a literature review shows that a perforation is found in 62 patients in the Goh series (38%) [9], 13 patients in the Vagner series (19.2%) [8], 7 patients in the Selivanov series (7%) [13], 2 patients in the Yasser series (2.5%) [4]. At the level of the stomach, a gastrotomy with extraction of the foreigner bodies then suture is performed most often. In case of perforation, a suture of it has near possible extraction of the foreign body and an abdominal toilet are then performed. At the level of the hail and when the foreign body is blocked in the intestinal lumen an enterotomy followed by suture is indicated. Enterostomy with abdominal toilet is performed when there is a perforation. At the colon level, a progression of the foreign body to the anal canal followed by manual extraction is attempted in the majority of cases. It was adopted by our team in a sick man with a wood as a foreign body sitting in the sigmoid colon. The comparison of our series and

the data in the literature shows that our therapeutic results are not consistent with those of the literature. Endoscopy is the most popular extraction method in the literature with site success rates of up to 99%. In our series the treatment was essentially based on emergency laparotomy in our context, related to perforation. The mobility associated with the ingestion of foreign bodies has been considerably reduced since the improvement of new management techniques. It was 57% a century ago, 5% in the 1960s and less than 1% since 1995 [5,6,8,13,48]. We have not recorded any deaths in our series.

Armed medical surveillance is necessary. The literature review makes it possible to find concordant points of view with regard to the gravity of foreign bodies, sharp edges and perforation in this case the dentures menus of metal hooks.

Conclusion

The occurrence of ingestion of foreign bodies is common in our region. Accidental digestive perforation by ingestion of medicinal plant is recurrent. When the clinical picture is alarming, an emergency laparotomy will be indicated. The awareness of the general public and especially traditional practitioners about the dangers caused by the ingestion of foreign bodies, makes it possible to act at the prevention stage. In general, the prognosis depends on the type of object ingested, its aggressiveness and the time taken to take charge.

Conflicts and Interests

No Conflicts and Interests.

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