

## Primary Peritonitis Revealed by Status Epilepticus

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### Abstract

### Case Report

There are many etiologies of status epilepticus (SE). In some cases, the etiological research of SE remains a challenge with atypical presentations. We report the case of an 18-year-old woman hospitalized in the intensive care unit for status epilepticus. The etiological research did not allow us to find the cause until an abdominopelvic CT scan showed free peritoneal abundant fluid consistent with a peritoneal infection. After surgical treatment, she developed multi-organ failure and died on the fourth day after surgery. Primary peritonitis revealed by SE has rarely been reported in the literature.

**Keywords:** Primary peritonitis, Streptococcus A, Status epilepticus.

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## INTRODUCTION

There are a wide variety of etiologies that can cause status epilepticus (SE). Along with intensive care, the search for a curable cause must be conducted. In some cases, the etiological research of SE remains a challenge with atypical presentations like in this case report: primary peritonitis revealed by status epilepticus. Primary peritonitis is a peritoneal infection without evident intraperitoneal septic focus. It mainly affects infants and young women. Less than 1% of all cases of peritonitis are due to primary peritonitis.

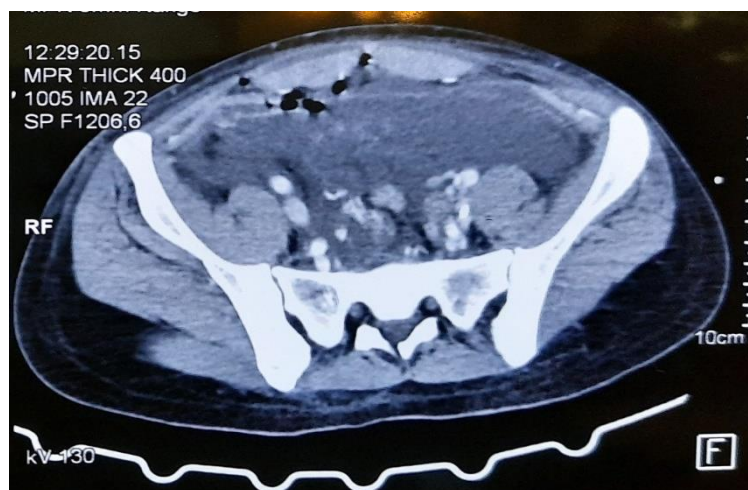
## CASE REPORT

An 18-year-old woman was hospitalized in the intensive care unit for status epilepticus (SE). She was followed for epilepsy since she was 6 years old, and she didn't have surgery before. She presented a generalized tonic-clonic convulsive seizure at rest lasting 1 minute. The family reported no physical or functional signs from the patient in the days or hours preceding the event. On admission, the patient was unconscious, capillary blood glucose was 0.89 g/L, blood pressure

120/54 mmHg, heart rate 95 min, respiratory rate 18/min, and 100% oxygen saturation under 10 L/min of oxygen. Due to the absence of regaining consciousness, she was intubated, sedated, and transferred to intensive care. Laboratory findings included lactate of 5.1 mmol/L, leukocytosis (WBC 12,600), and elevated C-reactive protein rate. The etiological research of this status epilepticus did not allow, at first, to find the cause. Then, an abdominopelvic CT scan with IV contrast showed free peritoneal abundant fluid consistent with a peritoneal infection explaining the SE. The patient underwent emergency exploratory surgery. Surgical exploration confirmed the presence of a large infected intraperitoneal effusion, which allowed us to retain the diagnosis of primary peritonitis. The peritoneal cavity was thoroughly washed with saline. We performed no organ resection. Our patient received antibiotic therapy (ceftriaxone, metronidazole, and levofloxacin). Bacterial cultures of the free peritoneal fluid grew a group A streptococcus. The patient developed multi-organ failure and died four days after surgery in intensive unit care.



**Figure 1:** CT scan showing peritoneal abundant fluid in the supracolic compartment



**Figure 2:** CT scan showing peritoneal abundant fluid in the infracolic compartment

## DISCUSSION

The estimated annual incidence of status epilepticus ranges from 10 to 41 per 100,000 inhabitants [1]. Primary peritonitis represents less than 1% of all cases of peritonitis and it occurs in patients with risk factors such as ascites and cirrhosis [2]. Group A hemolytic streptococcus (GpAs) and pneumococcus are the main causes of primary peritonitis. Peritonitis then seems to be due to hematogenous diffusion from a pharyngeal or pulmonary focus [3]. Frequently, the primary site of origin is not identified. For most authors, primary peritonitis needs exploratory laparotomy [3, 4]. Laparoscopic lavage may also be proposed [2, 5]. Our patient first presented with status epilepticus and needed sedation, intubation, and intensive care. While managing intensive care, the etiological research was unsuccessful, until the abdominopelvic CT scan showed free peritoneal abundant fluid consistent with a peritoneal infection. The exploratory laparotomy confirmed the primary peritonitis and bacterial cultures grew a group A streptococcus. Despite surgical treatment and injectable appropriate antibiotic therapy, our patient died in the intensive care unit. Faced with a picture of a

generalized seizure, clinicians should look for a non-neurological cause for the seizure. In this case, it was primary peritonitis whose evolution was fatal.

## CONCLUSION

Primary peritonitis revealed by status epilepticus is a rare entity. Physicians should be aware and think of the possibility of primary peritonitis in patients with status epilepticus particularly when the neurological investigations are normal.

**Competing interests:** All authors declare no competing interest.

## REFERENCES

1. Dupont, S., & Crespel, A. (2009). États de mal épileptiques: épidémiologie, définitions et classifications. *Revue neurologique*, 165(4), 307-314.
2. Legras, A., Lodico, R., Ferre, R., Valleur, P., & Pautrat, K. (2011). Primary peritonitis due to Streptococcus A: laparoscopic treatment. *Journal of visceral surgery*, 148(4), e315-e317.

3. Monneuse, O., Tissot, E., Gruner, L., Michailard Kaempf, F., Allaouchiche, B., Etienne, J., & Barth, X. (2010). Diagnosis and treatment of spontaneous group A streptococcal peritonitis. *Journal of British Surgery*, 97(1), 104-108.
4. Moskovitz, M., Ehrenberg, E., Grieco, R., Chamovitz, B., Burke, M., Snyder, D., & Book, M. (2000). Primary peritonitis due to group A streptococcus. *Journal of clinical gastroenterology*, 30(3), 332-335.
5. Mazza, D., Chio, F., & Khoury-Helou, A. (2009). Conservative laparoscopic treatment of diverticular peritonitis. *Journal de chirurgie*, 146(3), 265-269.