

# Right psoas muscle abscess.

## Report of a case of difficult diagnosis

*Absceso del músculo psoas derecho. Reporte de un caso de difícil diagnóstico*

Patricia Keller Ávila-Camacho,\* Daniel Ríos-Cruz,\*\* Alejandro Bañón-Reynaud,\*\*\*  
José Jiménez-Ocampo,\*\*\* Edgar Nava-Jiménez,\*\*\* Diego Rodríguez-Abarca\*\*\*

**Keywords:**  
Abscess, psoas,  
surgery, Mexico.

**Palabras clave:**  
Absceso, psoas,  
cirugía, México.

### ABSTRACT

A psoas abscess is a purulent collection located in this retroabdominal muscle. In the world literature, a triad of fever, lumbar pain and pain upon flexion of the hip is described, which makes diagnosis difficult due to its similarity with more common pathologies such as appendicitis. According to studies, 75% of the total number of patients are male. We present the case of a right psoas abscess diagnosed as a result of appendicular symptoms.

### RESUMEN

El absceso del psoas es una colección purulenta que se localiza en este músculo retroabdominal. En la literatura mundial se describe una triada constituida por fiebre, dolor lumbar y dolor en la flexión de la cadera, lo que dificulta el diagnóstico debido a su similitud con patologías más comunes como apendicitis. De acuerdo con estudios, 75% del total de enfermos son varones. Presentamos el caso de un absceso del psoas derecho diagnosticado a consecuencia de síntomas apendiculares.

### INTRODUCTION

**A**bscess of the psoas is one of the rarest and most difficult clinical entities to diagnose. It is classified as primary (without evidence of a nearby infectious focus) or secondary (from a suppurative focus in the vicinity of the muscle).<sup>1</sup> Currently, it is highly related to chronic diseases that lead to immune compromise.<sup>2</sup>

### PRESENTATION OF THE CASE

A 68-year-old male with a long-term history of gout, being treated with ketorolac (30 mg orally every eight hours). His condition began in January 2017 with oppressive pain 7 in a scale of 10 in the right iliac fossa—which partially gave way to the administration of ketorolac (in the aforementioned dose)—accompanied by nausea and vomiting. After five days of evolution without remission of the symptoms

and increasing in intensity to 9 in a scale of 10, he entered the Emergency Service of the Mexican Institute of Social Security (IMSS) No. 1 from Cuernavaca, Morelos. On physical examination we found him well oriented in time, place and person, alert and cooperative, with good mucosal coloration, painful facies; distended abdomen at the expense of adipose panniculus, decreased peristalsis, voluntary abdominal resistance on examination, right pelvic limb pain relief position, with pain upon extension. McBurney, Shutter and Markle signs were positive. Total blood cell count showed a leukocytosis of  $20,000/\text{mm}^3$ , 3,800 monocytes/ $\mu\text{l}$ , 14 neutrophils/ $\text{mm}^3$ . This gave us a clinical orientation towards appendicitis, with an Alvarado score of 7. Computed tomography (CT) showed a liquid image at the level of the right psoas muscle in the retroperitoneum (*Figures 1 and 2*), which modified the diagnosis and it directed us towards an abscess of the

\* Department of Surgery,  
ISSSTE, Zapata,  
Morelos, Mexico.

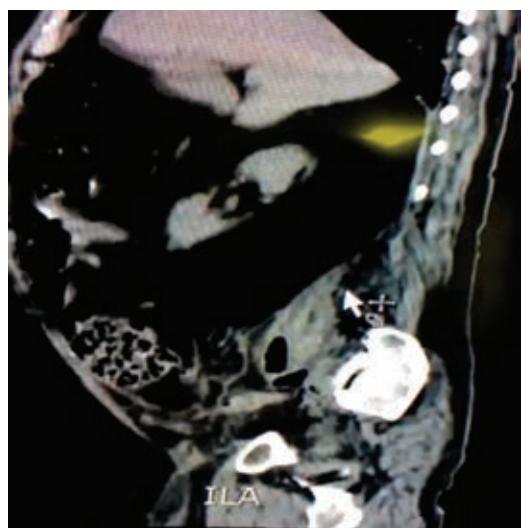
\*\* Department of  
Surgery, HGR #1, IMSS,  
Cuernavaca, Morelos,  
Mexico.

\*\*\* Medical  
School, Universidad  
Latinoamericana,  
Cuernavaca, Morelos,  
México.

Received: 30/10/2017  
Accepted: 08/08/2018



**How to cite:** Ávila-Camacho PK, Ríos-Cruz D, Bañón-Reynaud A, Jiménez-Ocampo J, Nava-Jiménez E, Rodríguez-Abarca D. Right psoas muscle abscess. Report of a case of difficult diagnosis. Cir Gen. 2019; 41(1): 39-41.



**Figure 1:** CAT, sagittal section; an image of the retroperitoneum is observed, occupied by fluid at the level of the iliac psoas muscle.

right psoas, of primary origin, as no data existed of a previous infection. He was scheduled for drainage surgery. During surgery, a collection of fluid in the right psoas muscle of approximately 300 ml was observed, which was drained without complications by open surgery and direct puncture of the abscess. A Penrose drainage was left and once the surgical act completed, he was admitted to the ward with antibiotic management with ceftriaxone, 1 g IV every 12 hours during his hospital stay. On the fifth postoperative day, he began with dyspnea, abdominal distension, evisceration and necrotic changes, for which he entered the operating room again. In the postoperative period, a sigmoid perforation was found that caused a necrotizing fasciitis with extension to the wall and retroperitoneal fascia. Surgical lavage and debridement of necrotic tissue was performed, and a Bogota bag was placed. The following post-surgical day he began signs of septic shock and organ failure, with a 12-point SOFA. Its evolution was torpid; he died 25 days later due to multiple organ failure.

## DISCUSSION

Psoas abscess is more common in males in mid-life. It is a rare pathology. However, the use of

CT has increased the frequency of diagnosis;<sup>3</sup> in our case. CT allowed us to come to the diagnosis of psoas abscess.

A study of 18 cases at the Johns Hopkins Hospital showed that 61% of the primary abscesses were patients between 27 and 81 years old; Of these, 28% occurred in those over 65 years.<sup>4</sup> In the case we described, the patient was 68 years old, which corresponds to the age reported in the literature.

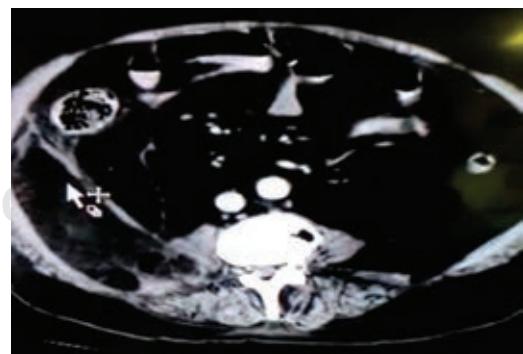
The most frequent symptom is low back pain radiating to the lower limb along with positive psoas maneuvers.<sup>5</sup> Our case presented appendicular signs or positive psoas maneuvers, which represents a distraction from the diagnostic orientation towards more common pathologies of the right iliac fossa.

The mortality of the primary psoas abscess is 3%, while that of the secondary psoas reaches 19%; one of the main causes of death is sepsis.<sup>6</sup> In our case, septic shock was the cause of death after the second surgical intervention.

The current diagnostic test of choice is a CT scan, since its sensitivity is close to 95%.<sup>7</sup> It was thanks to CT that a better diagnostic orientation was achieved, by observing the presence of fluid in the retroperitoneum.

The nonspecific clinical presentation generates delays in diagnosis and increased mortality. Laboratory data are also often nonspecific; for these reasons, it is a difficult diagnosis.<sup>8</sup> Laboratory and clinical data oriented us to the diagnosis of acute appendicitis.

As to the probability of presentation according to sex, 75% of reported cases



**Figure 2:** CT, cross section; a collection is observed in the retroperitoneum at the level of the right psoas muscle.

are men. The classic triad consists of fever, abdominal-lumbar pain and limitation of hip movement.<sup>9</sup> This coincides with our male patient, who also presented the classic triad, which usually resembles pathologies of the iliac fossa, which makes this triad not specific of this pathology.

In 1986, Ricci et al. reported 367 cases collected up to that moment from the literature, where the primary abscesses were characteristic of young patients.<sup>10</sup> In our case, it was a 68-year-old male, which does not correspond to the literature and could be attributed to his underlying autoimmune disease.

## CONCLUSION

The psoas abscess is an extremely rare entity, with unspecific manifestations. Its diagnosis requires high suspicion. Carrying out a CT scan allows the definitive diagnosis. In patients with associated autoimmune diseases, the prognosis can be fatal.

## REFERENCES

1. Beauregard-Ponce GE, Castaneda-Flores JL. Absceso del músculo psoas iliaco. Reporte de un caso y revisión de la literatura. Salud en Tabasco; 2016 [Fecha de consulta: 17 de marzo de 2017]; 22: 54-57. Available in: <http://www.redalyc.org/articulo.oa?id=48749482010>.
2. Carvajal T, Mayorga IK, Salazar-Cascante B. Absceso del músculo psoas (caso clínico). Rev Med Cos Cen. 2010; 67: 295-298.
3. Vicente-Ruiz M, Candel-Arenas MF, Ruiz-Marín M, Peña-Ros E, Sánchez-Cifuentes A, Albaracín-Marín-Blázquez A. Absceso de psoas como diagnóstico diferencial en la patología abdominal de urgencias. Cir Cir. 2014; 82: 268-273.
4. Lores CA, Gerstner J. Absceso piógeno del psoas: descripción de casos registrados en el Hospital Universitario del Valle. Rev Col de Or Tra. 2006; 20: 70-80.
5. Navarro V, Meseguer V, Fernández A, Medrano F, Sáez JA, Puras A. Absceso del músculo psoas. Descripción de una serie de 19 casos. Enferm Infect Microbiol Clin. 1998; 16: 118-122.
6. Solas-Beltrán A, Velasco-Sánchez B, Lendínez F, Ramírez-Huertas A, Paredes-Esteban RM. Tratamiento del absceso de psoas, aportación de un caso y revisión de la literatura. Cir Pediatr. 2002; 15: 41-43.
7. Pérez-Romero JL, Salazar-García P, Pérez-Romero ML, Ángeles-Belmonte M. Absceso de psoas. Rev Clin Med Fam. 2011; 4: 76-78.
8. Corral M, Hernández MC, Godoy N, Staffieri F, Weller C. Absceso del psoas: un desafío para el internista. Rev Med Rosario. 2010; 76: 29-33.
9. Medina JF, Vivas VH. Absceso del psoas: revisión de la literatura y estado actual. Rev Colomb Cir. 2004; 19: 181-189.
10. Ricci MA, Rose FB, Meyer KK. Pyogenic psoas abscess: worldwide variations in etiology. World J Surg. 1986; 10: 834-843.

### Correspondence:

**Dra. Patricia Keller Ávila-Camacho**

Av. Atlacomulco Núm. 174,  
Edificio A402, Col. Las Águilas,  
62470, Cuernavaca, Morelos.

**E-mail:** drapatokeller@yahoo.com.mx