

# Appendix Inflammation with Varicella Zoster Infection: Case Report

## *Varisella Zoster Enfeksiyonu ile Beraber Apendiks İnflamasyonu: Olgu Sunumu*

Beyza ÖZÇINAR,<sup>1</sup> Gökçen BALCI,<sup>2</sup> Ramazan BÜYÜKKAYA,<sup>3</sup> Adnan HAŞLAK<sup>1</sup>

### SUMMARY

Acute appendicitis with varicella zoster infection is a very rare event. We report the case of an 18-year-old immunocompetent adult with acute varicella zoster infection and abdominal pain at the right lower quadrant. He had tenderness on the right lower quadrant with defense and rebound. He had no leukocytosis, and abdominal ultrasonography showed an inflammation of the appendix (6.4 mm in diameter) with free fluid of about 25x21x20 mm. We observed the patient with antiviral therapy. On the second day, there was no increment in his physical signs, and on the tenth day of the acute onset of varicella zoster infection, he had no pain; the abdominal ultrasonography revealed no inflammation of the appendix.

**Key words:** Acute appendicitis; varicella zoster.

### ÖZET

*Varisella zoster enfeksiyonu ile birlikte akut apandisit oldukça nadir görülür. Bu yazıda, 18 yaşında akut varisella zoster enfeksiyonu geçiren ve sağ alt kadranda ağrısı olan bir olgu sunuldu. Fizik muayenede sağ alt kadranda hassasiyet, defans ve rebound mevcuttu. Lökositozu yoktu, abdominal ultrasonografide apendiks inflamasyonu (6.4 mm) ve 25x21x20 mm boyutlarında serbest sıvı saptandı. Biz hastayı antiviral tedavi vererek takip ettik, 2. gün fizik muayenede defans ve rebound geriledi. Onuncu günde hastanın hiç ağrısı kalmadı ve ultrasonografide apendiks normal olarak saptandı.*

**Anahtar sözcükler:** Akut apandisit; varisella zoster.

### INTRODUCTION

Acute appendicitis, an inflammation of appendix, is one of the most common reasons for emergency surgery, disease most commonly seen in ages between 6-18 years (77%).<sup>[1-3]</sup> Although, varicella zoster (VZ) infection is mainly a childhood disease, disease seen in adult population rarely. VZ is a highly infectious disease that spreads from person to person by direct contact or by air from an infected person's coughing or sneezing. It is often heralded by a prodrome of anorexia, myalgia, nausea, fever, headache,

sore throat, pain in both ears, complaints of pressure in head or swollen face, and malaise in adolescents and adults. Rarely cough, rhinitis, abdominal pain, and gastrointestinal distress has been reported in patients with varicella.<sup>[4]</sup> Typically, the disease is more severe in adults. Most people become infected before adulthood but 10% of young adults remain susceptible. The most serious complication of VZ infection is pneumonia.<sup>[5]</sup> We report a case of an adult with VZ infection and abdominal pain with inflammatory appendicitis.

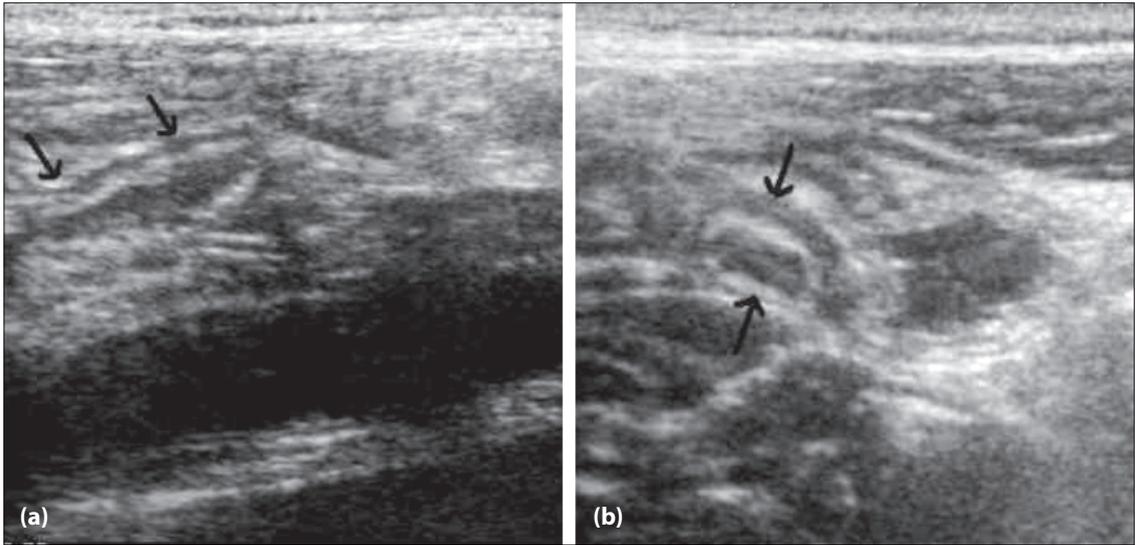
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<sup>1</sup>Ergani State Hospital, General Surgery Clinic, Diyarbakır

<sup>2</sup>Ergani State Hospital, Dermatology Clinic, Diyarbakır

<sup>3</sup>Ergani State Hospital, Radiodiagnostic Clinic, Diyarbakır

Correspondence (İletişim): Beyza Özçınar, M.D. e-mail (e-posta): drbeyza@hotmail.com



**Figure 1. (a, b)** Appendix inflammation at USG.

### CASE REPORT

An 18-year-old man was admitted to our general surgery outpatient clinic with skin rashes on his body during the last two days and abdominal pain during the last 24 hours. On his physical examination, we detected vesicular skin rashes of different ages with blister and tenderness at right lower quadrant with defence and rebound. Complete blood count revealed no leukocytosis. Abdominal sonography revealed in-



**Figure 2.** Free fluid in the abdomen at USG.

flammatory appendix (6.4 mm in diameter) (Figure 1a, b), mesenteric inflammation and free fluid there was about 25x21x20 mm in the abdomen (Figure 2) and grade 1 increment in kidney parenchyme. We started antiviral (acyclovir, po, 40 gr/day) therapy. We observed the patient, at the second day, his abdominal pain was decreased, and he has no leukocytosis again. Abdominal ultrasonography showed 5.7 mm in diameter appendicitis, we remained followed and at the tenth day of his symptom onset, he has no pain and abdominal ultrasonography revealed no inflammation at the appendix, no fluid in the abdomen and totally normal abdominal signs.

### DISCUSSION

We described the inflammatory appendicitis with VZ infection in immunocompetent adult. Although acute appendicitis is one of the most common surgical disease in childhood and early adulthood, information regarding the implications of pathogens in disease remains limited.<sup>[6]</sup> In terms of viruses the literature has lack of case studies. Herpes viruses are ubiquitous pathogens in children, remaining quiescent after an active infection, and reactivation of these viruses could be at the time of the onset of acute appendicitis or the viruses selfly can cause appendix inflammation during acute attack of infection.<sup>[6]</sup> Most adults have already immunized for varicella infection, and it is rarely seen in adulthood. Fewer than 5% of

cases occur in adults.<sup>[7-9]</sup> The complications of VZ are most serious in adults, which pneumonia is the most serious and most common one and also hepatitis, encephelitis and rarely necrotising faciitis can be detected.<sup>[10,11]</sup> Although, at the time of acute onset of VZ infection, abdominal pain can be seen. In our case, it can be detected may be as a different disease at the same time period with VZ, but we thought that inflammation at appendix was the complication of VZ like pneumonia or encephelitis and we choose to observe the patient with antiviral therapy. At the tenth day control, the inflammation was disappeared and patients returned to normal without appendicitis. In the literature review in PubMed search with the words “VZ infection” and “acute appendicitis” we have found no case with both acute appendicitis and VZ infection. This showed us that, abdominal pain with VZ can be seen, if patient has no peritonitis, we can observe the patients with antiviral therapy.

## REFERENCES

1. Prystowsky JB, Pugh CM, Nagle AP. Current problems in surgery. Appendicitis. *Curr Probl Surg* 2005;42:688-742.
2. Addiss DG, Shaffer N, Fowler BS, et al. The epidemiology of appendicitis and appendectomy in the United States. *Am J Epidemiol* 1990;132:910-25.
3. Ricci MA, Trevisani MF, Beck WC. Acute appendicitis. A 5-year review. *Am Surg* 1991;57:301-5.
4. General questions about the disease. *Varicella Disease (Chickenpox)*. CDCP. 2001-12-02.
5. *Epidemiology of Varicella Zoster Virus Infection, Epidemiology of VZV Infection, Epidemiology of Chicken Pox, Epidemiology of Shingles*. 2008-04-22.
6. Katzoli P, Sakellaris G, Ergazaki M, et al. Detection of herpes viruses in children with acute appendicitis. *J Clin Virol* 2009;44:282-6.
7. Mohsen AH, McKendrick M. Varicella pneumonia in adults. *Eur Respir J* 2003;21:886-91.
8. Feldman S. Varicella-zoster virus pneumonitis. *Chest* 1994;106:22-7.
9. Heininger U, Seward JF. Varicella. *Lancet* 2006;368:1365-76.
10. Baren JM, Henneman PL, Lewis RJ. Primary varicella in adults: pneumonia, pregnancy, and hospital admission. *Ann Emerg Med* 1996;28:165-9.
11. Definition of Chickenpox. *MedicineNet.com*. 2006-08-18.