

# CHAPTER 5

## ACUTE ABDOMINAL PAIN

**İbrahim GÜVEN<sup>1</sup>**

### **Introduction**

Acute abdominal pain is defined as abdominal pain with an onset of less than one week, with symptoms concentrated in the abdomen in patients with no known abdominal trauma and, for female patients, a gestational age of less than 20 weeks (1).

It is one of the most common (5-10%) causes of emergency department visits, and the cause is unknown in 42% of cases (2). Hospitalization rates for patients presenting with abdominal pain to the emergency department range from 20% to 40% (3). This rate is higher (60%) in the elderly population (4).

Abdominal pain can be classified neuroanatomically into three categories: Visceral pain, parietal pain, and reflected pain (5,6,7):

### **Visceral Pain**

Visceral pain results from irritation of the visceral peritoneum, which is innervated by autonomic nerves. It is often caused by distention of intra-abdominal organs and muscle contractions. The pain is typically dull, uncomfortable, and poorly localized. Since the fibers innervating the visceral peritoneum are segmentally distributed, visceral pain is localized by the sensory cortex. In addition, due to bilaterally innervated intraperitoneal organs, stimuli are relayed to both sides of the spinal cord. This is why visceral pain is felt in the midline, regardless of the anatomical location of the organ.

### **Parietal Pain**

Parietal pain occurs when the parietal peritoneum is stimulated, such as when an inflamed organ comes into contact with the parietal peritoneum. The parietal peritoneum is innervated by somatic nerves, so this pain is also known as somatic

<sup>1</sup> MD, Bozuyuk State Hospital, Department of Emergency Medicine, dr.guven.86@gmail.com, ORCID iD: 0009-0001-0662-3001

## References

1. Jangland E, Kitson A, Muntlin Athlin A. Patients with acute abdominal pain describe their experiences of fundamental care across the acute care episode: a multistage qualitative case study. *Journal of Advanced Nursing*. 2015; 72(4):791-801.
2. Esses D, Birnbaum A, Bijur P, Shah S, Gleyzer A, Gallagher EJ. Ability of CT to alter decision making in elderly patients with acute abdominal pain. *Am J Emerg Med*. 2004; 22: 270-272.
3. Koç F, Kekeç Z. Acil servise başvuran geriatric olgularının nörolojik yönden değerlendirilmesi. *Turkish Journal of Geriatrics*. 2011; 14:117-21.
4. Tekin F, İlter T. Birinci basamakta akut karın ağrısı olan hastaya yaklaşım. *Güncel Gastroenteroloji*. 2015;16(3):161-70.
5. Demir M. Karın Ağrısı Olan Hastaya Yaklaşım. *Klinik Tıp Bilimleri*. 2017; 5(2): 39-50.
6. Emet M, Eroğlu M, Aslan Ş, Öztürk G. Karın ağrısı olan hastaya yaklaşım. *Eurasian J Med*. 2007; 39: 136-41.
7. Sayılan AA, Ak ES, Özbaş A. Akut karın ağrısı ve hemşirelik bakımı. *İzmir Katip Çelebi Üniversitesi Sağlık Bilimleri Fakültesi Dergisi*. 2017; 2(3): 45-49.
8. Brown HF, Kelso L. Abdominal pain: an approach to a challenging diagnosis. *AACN Advanced Critical Care*. 2014; 25(3):266-78.
9. Abdullah M, Firmansyah MA. Diagnostic approach and management of acute abdominal pain. *Acta Medica Indonesiana*. 2012; 44(4):344-50.
10. Avegno J, Carlisle M. Evaluating the patient with right upper quadrant abdominal pain. *Emergency Medicine Clinic North America*. 2016;34(2):211-28.
11. Aslan N, Baydin A, Yücel M, Yurumez Y, Ercan B. Acil Serviste Akut Karın Ağrısı Yönetimi: Cerrahi Ya Da Cerrahi Olmayan Karın Ağrıları. *Online Türk Sağlık Bilimleri Dergisi*. 2021; 6(2), 224-235.
12. Çalışkan M. et al. Acil Cerrahi Polikliniğine Akut Karın Ağrısı ile Başvuran Hastaların Çok Yönlü Prospektif Değerlendirilmesi. *Journal of Academic Emergency Medicine/ Akademik Acil Tıp Olgu Sunumları Dergisi*. 2010; 2: 72-85.
13. Yardan T, Genç S, Baydin A, Nural MS, Aydın, M, Aygün D. Acil serviste akut pankreatit tanısı alan hastaların değerlendirilmesi. *Fırat Tıp Dergisi*. 2019; 14(2): 124-128.
14. Indiran V. Acute pelvic pain in female with ruptured ectopic pregnancy: Magnetic Resonance Imaging as problem solving tool. *Turkish Journal of Emergency Medicine*. 2016;16(2):89-90.
15. Elbi H, Bilge A, İrik, M. Geriatrik Hastada Karın Ağrısı Ayırıcı Tanısı: Kendini Sınırlayan Abdominal Aort Anevrizması Rüptürü. *Tepecik Eğitim ve Araştırma Hastanesi Dergisi*. 2018;28(1):62-64.
16. Çınar H. Karın Ağrısı Olan Hastaların Değerlendirilmesinde Karın Grafisinin Yeri. *Klinik Tıp Aile Hekimliği*.2017; 9(1), 10-43.
17. Hasbahçeci M, Başak F, Alimoğlu O. Akut karın ağrısının değerlendirilmesinde direkt karın grafisinin yeri. *Turkish Journal of Surgery*. 2012; 28(1), 061-064.
18. Aygencel G, Yılmaz U, Karamercan M, Karamercan A, İlhan M.N. Acil Serviste Karın Ağrısını Değerlendirmenin Maliyeti. *Gazi Medical Journal*, 2009; 20(1).