

# Impact of early versus late-onset mediastinitis on outcomes after upper gastrointestinal surgery

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## ABSTRACT

**BACKGROUND:** Mediastinitis is a rare but life-threatening complication after upper gastrointestinal (GI) surgery. Although advances in perioperative care have improved outcomes, the prognostic impact of the timing of onset remains unclear. Clarifying whether early-onset versus late-onset mediastinitis influences clinical, microbiological, and surgical outcomes is essential to guide management.

**METHODS:** We retrospectively analyzed 27 patients with mediastinitis after upper gastrointestinal surgery treated at our center between 2015 and 2025. Our institution is a tertiary-level, high-volume center performing complex upper GI procedures. During this period, 728 patients underwent upper GI surgery, among whom anastomotic leakage occurred in 44 (6.1%), and mediastinitis developed in 27 (3.7%). Patients were classified into early-onset ( $\leq 14$  days) and late-onset ( $> 14$  days) mediastinitis groups based on the postoperative interval. Demographic and clinical variables, comorbidities, smoking history, malignancy status, microbiological culture results, surgical interventions, intensive care unit (ICU) admission and duration, hospital stay, duration of antibiotic treatment, complications, and mortality were recorded and compared.

**RESULTS:** During the 10-year study period, 728 patients underwent upper gastrointestinal surgery at our institution, and mediastinitis developed in 27 patients (3.7%) following esophageal or gastric procedures. The median age was 64 years [interquartile range: 54–74.5], and 55.6% were male. Malignancy was present in 70.4%, most frequently gastric adenocarcinoma ( $n=6$ ). Overall, ICU admission was 81.5%, with a median ICU stay of two days, and mortality occurred in eight patients (29.6%). Culture positivity was observed in 16 patients (59.3%), most commonly with *Klebsiella pneumoniae*, *Proteus mirabilis*, and *Enterobacter* spp. Compared with late-onset mediastinitis, early-onset mediastinitis was associated with significantly shorter ICU stay (median 1 vs. 6.5 days,  $p=0.020$ ), hospital stay (16 vs. 41 days,  $p=0.003$ ), and antibiotic duration (14 vs. 35 days,  $p=0.002$ ). The early-onset group demonstrated a lower mortality rate than the late-onset group (17.6% vs. 50.0%,  $p=0.102$ ). Late-onset mediastinitis correlated with higher culture positivity and a greater need for complex surgical procedures, including video-assisted thoracic surgery (VATS), thoracotomy, and endoscopic stenting. Reoperations were required in 13 patients (48.1%). When stratified into abdominal and thoracic procedures, abdominal reoperations were more frequently observed in the late-onset group (5/8, 62.5%), whereas thoracic reoperations predominated in the early-onset group (4/5, 80%). Patients without reoperation constituted 51.9% of the cohort (14/27).

**CONCLUSION:** Early-onset mediastinitis after upper GI surgery is associated with improved outcomes. It correlates with better survival, shorter ICU and hospital stay, reduced antibiotic treatment, and a lower need for complex surgical procedures, whereas late-onset mediastinitis is linked to higher microbial burden, more frequent reoperations, and poorer outcomes.

**Keywords:** Mediastinitis; upper gastrointestinal surgery; early diagnosis; postoperative complications; surgical management.

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## INTRODUCTION

Mediastinitis remains an uncommon but devastating complication after upper gastrointestinal (GI) surgery, with mortality rates ranging from 14% to 47% despite advances in perioperative care.<sup>[1,2]</sup> The main etiologies include iatrogenic or spontaneous esophageal perforations, anastomotic leaks, and postoperative infections.<sup>[3-5]</sup> Early-onset mediastinitis is a decisive prognostic factor; Mureşan et al.<sup>[5]</sup> reported significantly lower mortality when onset occurred within 24 hours.<sup>[6]</sup> The following four management principles have been emphasized: (1) source control through repair or diversion, (2) wide mediastinal debridement and drainage, (3) broad-spectrum antibiotics including antifungals, and (4) maintenance of adequate nutrition.<sup>[7]</sup> While most previous studies have focused on esophageal perforations or cardiothoracic surgery, mediastinitis following upper GI procedures has been less frequently investigated. Our study presents a 10-year single-center experience analyzing 27 patients with mediastinitis after upper GI surgery, comparing early-onset and late-onset disease with respect to clinical outcomes, microbiological findings, and surgical interventions.

## MATERIALS AND METHODS

We retrospectively analyzed patients who developed mediastinitis after upper gastrointestinal surgery between 2015 and 2025 at our center. Our institution is a tertiary, high-volume referral center specializing in upper GI surgery. During these 10 years, 728 patients underwent upper GI operations, including esophagectomy and gastrectomy. Anastomotic leakage occurred in 44 patients (6.1%), and mediastinitis developed in 27 patients (3.7%), who constituted the study cohort.

All patients with suspected mediastinitis referred to our department during this period were reviewed. The diagnosis of mediastinitis was established either radiologically, based on computed tomography (CT) findings, or intraoperatively. Patients with mediastinitis secondary to cardiothoracic surgery, trauma, or descending oropharyngeal infections were excluded from the study.

Collected variables included demographic characteristics (age, sex, comorbidities, smoking history, malignancy status), perioperative parameters, postoperative day of onset, microbiological culture results (thoracic and abdominal specimens), and therapeutic interventions [tube thoracostomy, thoracocentesis, video-assisted thoracic surgery (VATS), thoracotomy, endoscopic stenting, and reoperations]. Clinical outcomes such as intensive care unit (ICU) admission and duration, hospital length of stay, antibiotic duration, postoperative complications, and mortality were also recorded.

Patients were stratified into two groups according to the timing of onset following surgery: early-onset mediastinitis ( $\leq 14$  days after the index operation) and late-onset mediastinitis ( $> 14$  days after the index operation). Culture positivity was defined as the presence of microbial growth other than “no growth” or “panel only” results.

This study was approved by the İstanbul University Ethics Committee (Date: 28.08.2025, Decision no: 2025/1332). All procedures were conducted in accordance with the principles of the Declaration of Helsinki.

### Statistical Analysis

Statistical analyses were conducted using SPSS software (version 29.0; IBM Corp., Armonk, NY, USA). The Kolmogorov–Smirnov test was used to assess the distribution of continuous data. Categorical variables were analyzed using the Chi-square or Fisher’s exact test, as appropriate in contingency tables, and Student’s t-test was used to compare continuous variables. A p-value of  $< 0.05$  was considered indicative of statistical significance.

## RESULTS

During the 10-year study period, 728 patients underwent upper gastrointestinal surgery at our institution, of whom 27 (3.7%) developed mediastinitis following esophageal or gastric procedures.

A total of 27 patients with mediastinitis after upper gastrointestinal surgery were analyzed. The median age of the cohort was 64 years [interquartile range (IQR): 54–74.5], and 55.6% were male. Nineteen patients (70.4%) had malignant disease, most frequently gastric adenocarcinoma (6/19, 31.6%), followed by esophageal squamous cell carcinoma (SCC) (3/19, 15.8%), gastrointestinal stromal tumor (GIST) (2/19, 10.5%), and others including colorectal adenocarcinoma, pancreatic cancer, sarcoma, and lymphoma (8/19, 42.1%). The distribution of malignancy types between the early-onset ( $\leq 14$  days) and late-onset ( $> 14$  days) mediastinitis groups was similar, with no statistically significant difference ( $p=0.910$ ) (Table 1). The median postoperative day of onset was 11 [IQR 3.5–15.5] and the median smoking exposure was 35 pack-years [IQR 30–40].

Overall, ICU admission was required in 22 patients (81.5%), with a median ICU stay of 2 days [IQR: 1–8]. The median hospital stay after onset of mediastinitis was 22 days [IQR: 16–41], and the median duration of antibiotic therapy was 20 days [IQR: 14–35].

Mortality occurred in eight patients (29.6%). When stratified by timing of onset, mortality was 17.6% in the early-onset group (3/17) and 50.0% in the late-onset group (5/10) ( $p=0.102$ ).

Patients with early-onset mediastinitis had significantly shorter ICU stay (median 1 vs. 6.5 days,  $p=0.020$ ), hospital stay (16 vs. 41 days,  $p=0.003$ ), and antibiotic duration (14 vs. 35 days,  $p=0.002$ ) compared with those with late-onset mediastinitis. ICU admission was required in 70.6% of early-onset cases versus 100% of late-onset cases ( $p=0.13$ ).

Among the 27 patients evaluated, culture positivity was observed in nine (52.9%) of the early-onset cases and in seven (70.0%) of the late-onset cases. Although culture positivity was numerically higher in the late-onset group, the difference

**Table 1.** Demographic characteristics and clinical outcomes of patients with mediastinitis after upper gastrointestinal (GI) surgery according to timing of diagnosis (early vs. late)

Variable	Total (N=27)	Early ( $\leq 14$ days) (N=17)	Late ( $>14$ days) (N=10)	p-value
Age, years (median [IQR])	64 [54–74.5]	62 [53–71]	67 [56–78]	0.410
Sex, N (%)				
Male	15 (55.6%)	10 (58.8%)	5 (50%)	0.700
Female	12 (44.4%)	7 (41.2%)	5 (50%)	
Smoking, pack-years (median [IQR])	35 [30–40]	34 [28–39]	37 [30–42]	0.520
Malignancy present, N (%)	19 (70.4%)	11 (64.7%)	8 (80%)	0.670
Malignancy type, N (%)				
Gastric adenocarcinoma	6 (31.6%)	4 (36.4%)	2 (25%)	0.910
Esophageal SCC	3 (15.8%)	2 (18.2%)	1 (12.5%)	
GIST	2 (10.5%)	1 (9.1%)	1 (12.5%)	
Others	8 (42.1%)	4 (36.4%)	4 (50%)	
Postoperative diagnosis day, median [IQR]	11 [3.5–15.5]	7 [3–10]	21 [17–27]	<0.001
ICU admission, N (%)	22 (81.5)	12 (70.6)	10 (100.0)	0.130
ICU stay, days (median [IQR])	2 [1–8]	1.0 [0–4]	6.5 [2.5–8]	0.020
Hospital stay, days (median [IQR])	22 [16–41]	16 [15–26]	41 [35–51]	0.003
Antibiotic duration, days (median [IQR])	20 [14–35]	14 [14–23]	35 [26–49]	0.002
Culture Result				
Negative	11 (40.7%)	8 (47.1%)	3 (30.0%)	0.448
Positive	16 (59.3%)	9 (52.9%)	7 (70.0%)	
Mortality, N (%)	8 (29.6%)	3 (17.6%)	5 (50%)	0.102

IQR: interquartile range, SCC: squamous cell carcinoma, GIST: gastrointestinal stromal tumor.

**Table 2.** Distribution of microorganisms isolated from thoracic and abdominal cultures

Microorganism	Thoracic cultures N (%)	Abdominal cultures N (%)	Total N (%)
<i>Klebsiella pneumoniae</i>	4 (14.8%)	0 (0)	4 (14.8%)
<i>Proteus mirabilis</i>	2 (7.4%)	1 (3.7%)	3 (11.1%)
<i>Enterobacter spp.</i>	2 (7.4%)	2 (7.4%)	4 (14.8%)
<i>Escherichia coli</i>	0 (0)	2 (7.4%)	2 (7.4%)
<i>Pseudomonas aeruginosa</i>	0 (0)	2 (7.4%)	2 (7.4%)
<i>Streptococcus <math>\alpha</math>-hemolytic</i>	2 (7.4%)	0 (0)	2 (7.4%)
<i>Streptococcus <math>\beta</math>-hemolytic</i>	0 (0)	1 (3.7%)	1 (3.7%)
<i>Aspergillus spp.</i>	1 (3.7%)	0 (0)	1 (3.7%)
<i>Corynebacterium spp.</i>	0 (0)	1 (3.7%)	1 (3.7%)
<i>Citrobacter spp.</i>	0 (0)	1 (3.7%)	1 (3.7%)
Total positive cultures	11 (40.7%)	10 (37%)	16 (59.3%)

was not statistically significant ( $p=0.448$ ) (Table 1).

Thoracic cultures were obtained from all 27 patients, of which 11 (40.7%) demonstrated microbial growth. The most

frequent isolate was *Klebsiella pneumoniae* ( $n=4$ , 14.8%), including one polymicrobial case in combination with *Proteus mirabilis*. Other thoracic isolates included *Proteus mirabi-*

**Table 3.** Surgical and interventional procedures according to the timing of diagnosis

Intervention	Total (N=27)	Early diagnosis ≤14 days (N=17)	Late diagnosis >14 days (N=10)	p-value
Tube thoracostomy	20 (74.1%)	14 (82.4%)	6 (60%)	0.210
Thoracentesis (diagnostic/therapeutic)	10 (37.0%)	7 (41.2%)	3 (30%)	0.700
VATS exploration/empyema enucleation	3 (11.1%)	1 (5.9%)	2 (20%)	0.250
Thoracotomy with repair/fistula closure	2 (7.4%)	0	2 (20%)	0.130
Endoscopic stent placement	2 (7.4%)	0	2 (20%)	0.130

VATS; video-assisted thoracic surgery.

**Table 4.** Distribution of abdominal and thoracic reoperations according to timing of diagnosis

Category	Early diagnosis ≤14 days (n=17)	Late diagnosis >14 days (n=10)	Total (n=27)
Abdominal reoperations (laparotomy, laparoscopy, abscess drainage)	3 (17.6%)	5 (50.0%)	8 (29.6%)
Thoracic reoperations (VATS, thoracotomy, stent, fistula repair)	4 (23.5%)	1 (10.0%)	5 (18.5%)
No reoperation	10 (58.8%)	4 (40.0%)	14 (51.9%)
Total	17 (100%)	10 (100%)	27 (100%)

VATS; video-assisted thoracic surgery.

lis (n=2), *Enterobacter* spp. (n=2; one in combination with *Streptococcus*  $\alpha$ -hemolytic), *Streptococcus*  $\alpha$ -hemolytic (n=2), and *Aspergillus* spp. (n=1).

Abdominal cultures were positive in 10 patients (37.0%). The most common isolates were *Enterobacter* spp. (n=2), *Escherichia coli* (n=2), and *Pseudomonas aeruginosa* (n=2). Less frequent microorganisms included *Proteus mirabilis*, *Streptococcus*  $\beta$ -hemolytic, *Corynebacterium* spp., and *Citrobacter* spp. (n=1 each).

Overall, 16 thoracic and 17 abdominal cultures showed no growth. On a patient basis, 11 individuals (40.7%) had no growth in either culture, while two patients demonstrated polymicrobial growth, underscoring the potential for mixed infections in mediastinitis (Table 2).

In the early-onset group, most patients were managed successfully with tube thoracostomy (14/17, 82.4%) and thoracentesis (7/17, 41.2%). In contrast, late-onset cases more frequently required complex procedures, including video-assisted thoracic surgery exploration (2/10, 20.0%), thoracotomy with fistula repair (2/10, 20.0%), and endoscopic stent placement (2/10, 20.0%). Although these complex procedures were numerically more common in the late-onset group, the difference did not reach statistical significance (Table 3).

When reoperations were stratified into abdominal and tho-

racic procedures, abdominal reoperations were more frequently observed in the late-onset group (5/8, 62.5%), whereas thoracic reoperations predominated in the early-onset group (4/5, 80%). Patients without reoperation accounted for 51.9% of the cohort (14/27) (Table 4).

DISCUSSION

This study demonstrates that the timing of onset significantly impacts outcomes in mediastinitis after upper GI surgery. Early-onset mediastinitis was associated with shorter ICU and hospital stay, reduced antibiotic duration, and lower mortality. Beyond these outcome measures, early-onset disease also minimized the need for complex surgical procedures, underscoring the clinical importance of prompt intervention.

Delayed diagnosis likely leads to poorer outcomes through several interrelated mechanisms. Prolonged mediastinal contamination permits bacterial proliferation and biofilm formation, resulting in extensive tissue necrosis and persistent sepsis. Continued inflammatory and catabolic responses contribute to metabolic exhaustion, malnutrition, and impaired wound healing, while delayed source control further perpetuates infection. These factors collectively explain the higher rates of reoperation, prolonged hospitalization, and increased mortality observed in late-onset cases.

Consistent with our findings, previous studies on esophageal perforation and mediastinal infections have shown that delayed diagnosis promotes sepsis progression, increases microbial burden, and significantly worsens survival outcomes. Early recognition and prompt intervention have repeatedly been emphasized as key prognostic factors in esophageal perforation management. Jones and Ginsberg highlighted the persistent challenges associated with delayed diagnosis and treatment,<sup>[7]</sup> while Whyte et al.<sup>[8]</sup> demonstrated the value of early primary repair in intrathoracic perforations. Wright et al.<sup>[9]</sup> and Bufkin et al.<sup>[10]</sup> further advocated reinforced or early surgical repair to optimize outcomes. Improved survival following esophageal perforation has also been reported in pediatric populations.<sup>[11]</sup> Moreover, Iannettoni et al.<sup>[12]</sup> showed that functional outcomes after surgical treatment can be favorable when intervention is timely. In the broader context of thoracic trauma, Gabor et al.<sup>[13]</sup> identified clear indications for surgical management in tracheobronchial ruptures, underscoring the importance of early operative strategies in airway and mediastinal injuries.

Importantly, our study extends current knowledge by focusing specifically on mediastinitis after upper GI surgery, a relatively underreported subgroup. We demonstrate that early-onset mediastinitis not only improves survival but also reduces microbiological burden and surgical complexity. Late-onset mediastinitis was associated with a substantially higher likelihood of requiring thoracotomy, stent placement, and reoperations, reflecting greater disease severity and increased resource utilization. These findings highlight that early-onset disease is not only prognostically important but also critical for optimizing surgical decision-making and reducing health-care costs.

This study has limitations. Its retrospective design and relatively small sample size may limit statistical power, particularly for subgroup analyses of specific interventions. Nevertheless, given the rarity of mediastinitis in this context, our data offer valuable insight into management and emphasize the importance of early recognition. Future multicenter prospective studies are warranted to validate these findings and to establish standardized protocols for the diagnosis and management of mediastinitis following upper GI surgery.

Although the mortality difference between the two groups did not reach statistical significance, the late-onset cohort demonstrated an almost 50% mortality rate compared with only 17.6% in the early-onset group. This notable disparity underscores the clinical significance of timely recognition, even in the absence of statistical confirmation. Our findings suggest that delayed diagnosis may carry a markedly higher risk of death, which is consistent with prior reports emphasizing the adverse prognostic impact of delayed intervention in mediastinal and esophageal infections.

## CONCLUSION

Early-onset mediastinitis after upper GI surgery is associated with improved outcomes. It reduces ICU and hospital stay, shortens antibiotic treatment, decreases mortality, and minimizes the need for advanced surgical procedures. In contrast, late-onset mediastinitis is linked to higher culture positivity, greater surgical complexity, and poorer outcomes.

Our findings emphasize the importance of recognizing the timing of onset in this rare but severe condition. Establishing standardized protocols and adopting a proactive approach may further improve prognosis. Future multicenter studies with larger cohorts are warranted to validate these results and guide evidence-based management strategies.

**Ethics Committee Approval:** This study was approved by the İstanbul University Ethics Committee (Date: 28.08.2025, Decision No: 2025/1332).

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**Conflict of Interest:** None declared.

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## REFERENCES

1. Burnett CM, Rosemurgy AS, Pfeiffer EA. Life-threatening acute posterior mediastinitis due to esophageal perforation. *Ann Thorac Surg* 1990;49:979–83. [\[CrossRef\]](#)
2. El Oakley RM, Wright JE. Postoperative mediastinitis: classification and management. *Ann Thorac Surg* 1996;61:1030–6. [\[CrossRef\]](#)
3. Tang H, Xue L, Hong J, Tao X, Xu Z, Wu B. A method for early diagnosis and treatment of intrathoracic esophageal anastomotic leakage: prophylactic placement of a drainage tube adjacent to the anastomosis. *J Gastrointest Surg* 2012;16:722–7. [\[CrossRef\]](#)
4. Hassan MA, Svendsen LB, Thorsteinsson M. Association between bacterial growth in chest drains and anastomotic leakage after esophageal resection. *Langenbecks Arch Surg* 2022;407:3407–12. [\[CrossRef\]](#)
5. Mureşan M, Balmos I, Voidazan S, Domsa I, Sala D, Beleaua MA, et al. Sepsis in acute mediastinitis – a severe complication after esophageal perforations. *J Crit Care Med* 2019;5:49–55. [\[CrossRef\]](#)
6. Shields TW. Perforation of the aerodigestive tract. In: Shields TW, Lo-Cicero J, Reed CE, Feins RH, editors. *General Thoracic Surgery*. 8th ed. Philadelphia: Wolters Kluwer; 2018. p.1343–60.
7. Jones WG, Ginsberg RJ. Esophageal perforation: a continuing challenge. *Ann Thorac Surg* 1992;53:534–43. [\[CrossRef\]](#)
8. Whyte RI, Iannettoni MD, Orringer MB. Intrathoracic esophageal perforation: the merit of primary repair. *J Thorac Cardiovasc Surg* 1995;109:140–6. [\[CrossRef\]](#)
9. Wright CD, Mathisen DJ, Wain JC, Moncure AC, Hilgenberg AD, Grillo HC, et al. Reinforced primary repair of thoracic esophageal perforation. *Ann Thorac Surg* 1995;60:245–9. [\[CrossRef\]](#)
10. Engum SA, Grosfeld JL, West KW, Rescorla FJ, Scherer LR, Vaughan WG, et al. Improved survival in children with esophageal perforation.

- Arch Surg 1996;131:604–10.
11. Bufkin BL, Miller JJ, Mansour KA. Esophageal perforation: emphasis on management. Ann Thorac Surg 1996;61:1447–52. [CrossRef]
12. Iannettoni MD, Vlessis AA, Whyte RI, Orringer MB, Kirsh MM. Functional outcome after surgical treatment of esophageal perforation. Ann Thorac Surg 1997;64:1606–10. [CrossRef]
13. Gabor S, Renner H, Pinter H, Sankin O, Matzi V, Ratzenhofer B, et al. Indications for surgery in tracheobronchial ruptures. Eur J Cardiothorac Surg 2001;20:399–403. [CrossRef]

## ORİJİNAL ÇALIŞMA - ÖZ

### Üst gastrointestinal cerrahiler sonrası mediastinitte erken ve geç tanının klinik sonuçlara etkisi

**AMAÇ:** Üst gastrointestinal (GIS) cerrahiler sonrası gelişen mediastinit nadir ancak yaşamı tehdit eden bir komplikasyondur. Perioperatif takipteki gelişmelere rağmen tanı zamanlamasının prognoz üzerindeki etkisi net değildir. Erken gelişen ve geç dönem gelişen mediastinitin klinik, mikrobiyolojik ve cerrahi sonuçlar üzerindeki etkisinin ortaya konması, yönetim stratejileri için kritik öneme sahiptir.

**GEREÇ VE YÖNTEM:** 2015–2025 yılları arasında merkezimizde üst gis cerrahisi sonrası mediastinit tanısı alan 27 hasta retrospektif olarak incelendi. Hastalar, cerrahi sonrası mediastinit gelişim zamanına göre erken ( $\leq 14$  gün) ve geç dönem ( $> 14$  gün) gruplara ayrıldı. Demografik veriler, ek hastalıklar, sigara öyküsü, malignite varlığı, tanı zamanı, kültür sonuçları, cerrahi girişimler, yoğun bakım ihtiyacı, yoğun bakım kalış süresi, hastanede yatış süresi, antibiyoterapi süresi, komplikasyonlar ve mortalite oranları karşılaştırıldı.

**BULGULAR:** Median yaş 64 [IQR 54–74.5] olup, hastaların %55.6'sı erkekti. Olguların %70.4'ünde malignite mevcuttu, en sık mide adenokarsinomu ( $n=6$ ) izlendi. Yoğun bakım ünitesi (YBÜ) ihtiyacı %81.5 olup median kalış süresi 2 gündü; mortalite 8 hastada (%29.6) görüldü. Kültür pozitifliği 16 hastada (%59.3) idi; en sık *Klebsiella pneumoniae*, *Proteus mirabilis* ve *Enterobacter* spp. izole edildi. Erken gelişen mediastinit grubunda YBÜ kalış süresi (median 1 ve 6.5 gün,  $p=0.020$ ), hastanede yatış süresi (16 ve 41 gün,  $p=0.003$ ) ve antibiyoterapi süresi (14 ve 35 gün,  $p=0.002$ ) istatistiksel olarak anlamlı şekilde daha kısaydı. Erken gelişen grupta mortalite oranı, geç dönem gelişen gruba kıyasla daha düşük saptandı (%17.6 ve %50,  $p=0.102$ ). Geç dönemde gelişen grupta kültür pozitifliği daha yüksekti. Bu grupta kompleks cerrahi girişimler video yardımlı torakoskopik cerrahi (VATS), torakotomi, endoskopik stent daha fazla uygulandı. Toplam 13 hastada (%48.1) reoperasyon gerekti. Reoperasyonlar batin ve toraks cerrahisi girişimleri olarak sınıflandırıldığında, batin cerrahisi reoperasyonları daha çok geç dönem gelişen grupta (5/8, %62.5), toraks cerrahisi reoperasyonları ise erken gelişen grupta (4/5, %80) gözlemlendi. Reoperasyon uygulanmayan hastalar kohortun %51.9'unu oluşturdu (14/27).

**SONUÇ:** Üst GIS cerrahisi sonrası gelişen mediastinitte erken tanı prognozu belirgin olarak iyileştirmektedir. Erken tanı; mortaliteyi, yoğun bakım ve hastane kalış süresini, antibiyotik tedavi süresini ve kompleks cerrahi ihtiyacını azaltmaktadır. Geç tanı ise yüksek mikrobiyal yük, sık reoperasyon ve olumsuz klinik sonuçlarla ilişkilidir.

**Anahtar sözcükler:** Cerrahi tedavi; erken tanı; mediastinit; postoperatif komplikasyonlar; üst GIS cerrahisi.

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