



## Risk Factors Affecting Spontaneous Pleurodesis After Indwelling Tunneled Catheter Application in Malignant Pleural Effusion

### Malign Plevral Efüzyonda Kalıcı Tünelli Kateter Uygulanma Sonrası Spontan Plörodezisi Etkileyen Risk Faktörleri

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Dear Editor,

I read with great interest the article by Hıdır Esme (2025), “*Risk Factors Affecting Spontaneous Pleurodesis After Indwelling Tunneled Catheter Application in Malignant Pleural Effusion*”, published in the *Balıkesir Medical Journal* (BMedJ, 9(2): 77–81).

The study evaluated a cohort of 34 patients and provided important findings regarding the determinants of spontaneous pleurodesis (SP) following indwelling tunneled catheter (ITC) placement in malignant pleural effusion (MPE). The author demonstrated that the absence of trapped lung, a shorter interval between MPE onset and ITC insertion, lack of a history of massive effusion, and longer catheter duration were all significantly associated with higher pleurodesis success (Esme, 2025).

From an emergency medicine perspective, these findings are highly relevant. Patients with MPE often present to the emergency department (ED) with acute dyspnea or hypoxemia. In many cases, temporary interventions such as thoracentesis are

performed to provide short-term relief; however, this may delay ITC placement and reduce the likelihood of pleurodesis (Clive et al., 2014). Esme’s study underscores the importance of early ITC insertion and highlights the critical role of timely referral from the ED. Furthermore, it reminds us that ED physicians should not only aim for immediate symptom relief but also consider long-term outcomes and close coordination with specialist teams.

Recent studies further support these conclusions. For instance, ultrasound-guided pigtail drainage is safe in the ED but offers limited long-term benefit when used alone (Szymczyk et al., 2025). In contrast, early ITC placement has been associated with improved symptom control and higher SP rates (Lin et al., 2025). Moreover, daily drainage strategies have been reported to increase pleurodesis success compared with symptom-driven drainage significantly (Baguneid et al., 2025). Taken together, these data support a shift toward earlier, more protocolized interventions for eligible patients.

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From a systems perspective, the role of the ED is critical not only in stabilizing patients but also in determining the trajectory of care. Repeated ED presentations for uncontrolled dyspnea place a significant burden on both patients and healthcare resources. Early recognition of risk factors, such as a trapped lung or massive effusion, combined with clear referral pathways, can shorten the time to ITC placement, prevent avoidable admissions, and improve the efficiency of care delivery.

In conclusion, Esme's work clearly demonstrates that timing and pleural characteristics are decisive factors in the success of pleurodesis after ITC placement. Emergency departments, as the first point of contact for most MPE patients, are uniquely positioned to influence outcomes through early diagnosis, timely referral, and structured management strategies. These insights should encourage clinicians to integrate ED-based decision-making into broader treatment pathways for malignant pleural effusion.

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