UDC 616.24-006.6-085.37-08 https://doi.org/10.47526/3080-8715.6495
GRNTI 76.29.49

DURVALUMAB FOLLOWING SEQUENTIAL MULTIMODAL TREATMENT IN LIMITED-STAGE SMALL-CELL LUNG CANCER: A REAL-WORLD CASE REPORT OF SYMPTOM CONTROL AND FUNCTIONAL IMPROVEMENT

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Abstract

Durvalumab is an evidence-based consolidation option for limited-stage small-cell lung cancer without progression after concurrent platinum-based chemoradiotherapy. Real-world care may involve sequential treatment, adapted dosing, interruptions, and limited follow-up imaging.

Aim. To describe symptoms, functional recovery, treatment exposure, and safety after durvalumab following sequential platinum-etoposide chemotherapy and thoracic radiotherapy.

Materials and Methods. This CARE-compliant report reviewed the clinical record, treatment chronology, imaging, ECOG performance status (ECOG PS), symptoms, and adverse events. Written informed consent was obtained.

Case Presentation. A 54-year-old current non-smoker with minimal remote tobacco exposure had right-lung small-cell carcinoma recorded as cT2aN1M0, stage IIB. Non-contrast brain MRI on 1 December 2024 reported no intracranial mass. He received six courses of platinum-etoposide followed by sequential thoracic radiotherapy (60 Gy). Durvalumab 500 mg was administered intravenously every 2 weeks. Six infusions were delivered from 3 February to 5 June 2026, with a 66-day gap between infusions 4 and 5.

Results. Cough, exertional dyspnea, and chest pain decreased, while ECOG PS improved from 2 to 1. Grade 1 pruritus was managed symptomatically; no grade 3–4 immune-related adverse events were documented. Interim ^{18} F-FDG PET/CT after four infusions showed predominantly post-radiation thoracic changes and new metabolically active foci in the left acetabulum and C7 vertebral body. Possible progression remained unconfirmed because dedicated follow-up imaging and RECIST-compatible measurements were unavailable. Baseline brain MRI did not report metastases, but sensitivity was limited without contrast and no post-treatment brain imaging was available.

Received: 23.07.2026 / Accepted: 31.07.2026

Conclusion. Durvalumab was accompanied by symptomatic and functional improvement with acceptable short-term tolerability. PET/CT did not establish an objective response and revealed indeterminate osseous foci requiring confirmation. This case describes treatment feasibility and tolerability but does not demonstrate tumour control or anticancer efficacy.

Keywords: small-cell lung cancer; limited-stage disease; durvalumab; sequential chemoradiotherapy; immunotherapy; ECOG performance status; symptom control; case report

ШЕКТЕУЛІ САТЫДАҒЫ ҰСАҚ ЖАСУШАЛЫ ӨКПЕ ОБЫРЫНДА РЕТТІ МУЛЬТИМОДАЛЬДЫ ЕМНЕН КЕЙІН ДУРВАЛУМАБ ҚОЛДАНУ: СИМПТОМДАРДЫ БАҚЫЛАУ ЖӘНЕ ФУНКЦИОНАЛДЫҚ ЖАҚСАРУ БОЙЫНША КЛИНИКАЛЫҚ ЖАҒДАЙ

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Аңдатпа

Шектеулі сатыдағы ұсақ жасушалы өкпе обырында бір мезгілде жүргізілген платина негізіндегі химиосәулелік емнен кейін ауру үдемесе, дурвалумабпен консолидациялық терапияның тиімділігі дәлелденген. Нақты тәжірибеде емнің ретті жүргізілуі, жергілікті дозалау, үзілістер және бақылау бейнелеуінің шектеулілігі кездеседі.

Мақсаты. Ретті платина-этопозид химиотерапиясы мен торакальды сәулелік терапиядан кейін дурвалумаб алған пациенттегі симптомдар динамикасын, функционалдық қалпына келуді, ем экспозициясын және қауіпсіздікті сипаттау.

Материалдар мен әдістер. CARE қағидаттарына сәйкес клиникалық құжаттама, ем хронологиясы, бейнелеу нәтижелері, ECOG статусы, симптомдар және жағымсыз құбылыстар талданды. Пациенттің жазбаша келісімі алынды.

Клиникалық жағдай. Қазіргі уақытта шекпейтін, бұрын темекіні өте қысқа қолданған 54 жастағы ер адамда оң өкпенің ұсақ жасушалы обыры cT2aN1M0, IIB сатысы ретінде тіркелген. 2024 жылғы 1 желтоқсандағы контрастсыз ми МРТ-сында интракраниалдық көлемді түзіліс сипатталмаған. Пациент платина-этопозидпен алты курс химиотерапия, кейін ретті түрде 60 Гр торакальды сәулелік терапия алды. Дурвалумаб 500 мг дозада екі апта сайын енгізілді. 2026 жылғы 3 ақпан мен 5 маусым аралығында алты инфузия жасалды, төртінші және бесінші инфузия арасында 66 күндік үзіліс болды.

Нәтижелер. Жөтел, физикалық жүктемедегі ентігу және кеуде ауыруы азайып, ECOG статусы 2-ден 1-ге жақсарды. 1-дәрежелі қышыну симптоматикалық еммен бақыланды, 3–4

Received: 23.07.2026 / Accepted: 31.07.2026

дәрежелі иммундық жағымсыз құбылыстар тіркелмеді. Төрт инфузиядан кейінгі ^{18} F-FDG ПЭТ/КТ постсәулелік торакальды өзгерістерді және сол жақ ацетабулум мен С7 омыртқа денесіндегі жаңа метаболикалық белсенді ошақтарды көрсетті. Бақылау бейнелеуі мен RECIST өлшемдері болмағандықтан, ықтимал үдеу расталмады. Бастапқы ми МРТ-сында метастаз сипатталмағанымен, контрастсыз зерттеудің сезімталдығы шектеулі болды және емнен кейін ми бейнелеуі жүргізілмеді.

Қорытынды. Дурвалумаб қолдану симптомдық және функционалдық жақсарумен, сондай-ақ қысқа мерзімді қолайлы көтерімділікпен қатар жүрді. ПЭТ/КТ объективті жауапты дәлелдемеді және растауды қажет ететін сүйек ошақтарын көрсетті. Бұл жағдай емді қолдану мүмкіндігі мен көтерімділігін сипаттайды, бірақ ісікті бақылауды немесе ісікке қарсы тиімділікті дәлелдемейді.

Түйін сөздер: ұсақ жасушалы өкпе обыры; шектеулі саты; дурвалумаб; ретті химиосәулелік ем; иммунотерапия; ECOG; симптомдарды бақылау; клиникалық жағдай

ДУРВАЛУМАБ ПОСЛЕ ПОСЛЕДОВАТЕЛЬНОГО МУЛЬТИМОДАЛЬНОГО ЛЕЧЕНИЯ ПРИ МЕЛКОКЛЕТОЧНОМ РАКЕ ЛЕГКОГО ОГРАНИЧЕННОЙ СТАДИИ: КЛИНИЧЕСКИЙ СЛУЧАЙ С АКЦЕНТОМ НА КОНТРОЛЬ СИМПТОМОВ И ФУНКЦИОНАЛЬНОЕ УЛУЧШЕНИЕ

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Аннотация

Эффективность консолидации дурвалумабом при мелкоклеточном раке легкого ограниченной стадии доказана при отсутствии прогрессирования после одновременной платинсодержащей химиолучевой терапии. В реальной практике встречаются последовательное лечение, локальные схемы дозирования, перерывы и ограниченная визуализация.

Цель. Описать динамику симптомов, функциональное восстановление, экспозицию лечения и безопасность при применении дурвалумаба после последовательной химиотерапии платина-этопозид и торакальной лучевой терапии.

Материалы и методы. В соответствии с принципами CARE проанализированы медицинская документация, хронология лечения, визуализация, статус ECOG, симптомы и нежелательные явления. Получено письменное согласие пациента.

Received: 23.07.2026 / Accepted: 31.07.2026

Клинический случай. У 54-летнего мужчины, ныне некурящего, с минимальным курением в анамнезе был зарегистрирован мелкоклеточный рак правого легкого cT2aN1M0, стадия IIB. На бесконтрастной МРТ головного мозга от 1 декабря 2024 года внутричерепное объемное образование не описано. Пациент получил шесть курсов химиотерапии платина-этопозид, затем последовательную торакальную лучевую терапию 60 Гр. Дурвалумаб вводили по 500 мг каждые две недели. С 3 февраля по 5 июня 2026 года выполнено шесть инфузий, с 66-дневным перерывом между четвертой и пятой.

Результаты. Уменьшились кашель, одышка при нагрузке и боль в грудной клетке, статус ECOG улучшился с 2 до 1. Зуд 1 степени контролировался симптоматически, иммунные нежелательные явления 3–4 степени не зарегистрированы. Промежуточная ^{18} F-FDG ПЭТ/КТ после четырех инфузий показала постлучевые изменения в грудной клетке и новые метаболически активные очаги в левой вертлужной впадине и теле позвонка C7. Возможное прогрессирование не подтверждено из-за отсутствия контрольной визуализации и измерений по RECIST. На исходной МРТ метастазы не описаны, однако чувствительность бесконтрастного исследования была ограничена и визуализация после лечения отсутствовала.

Заключение. Дурвалумаб сопровождался симптоматическим и функциональным улучшением при приемлемой краткосрочной переносимости. ПЭТ/КТ не подтвердила объективный ответ и выявила неопределенные костные очаги, требующие верификации. Случай характеризует осуществимость и переносимость лечения, но не доказывает контроль опухоли или противоопухолевую эффективность.

Ключевые слова: мелкоклеточный рак легкого; ограниченная стадия; дурвалумаб; последовательная химиолучевая терапия; иммунотерапия; ECOG; контроль симптомов; клинический случай.

Introduction

Small-cell lung cancer (SCLC) is an aggressive thoracic malignancy characterized by rapid growth, early dissemination, and a high probability of relapse despite initial chemosensitivity [1-3]. In limited-stage disease, platinum-etoposide chemotherapy combined with thoracic radiotherapy remains the foundation of curative-intent treatment, although the optimal sequence and timing depend on clinical fitness, local resources, and treatment access [3,4].

Immune-checkpoint inhibition has reshaped the SCLC treatment landscape. In extensive-stage disease, the CASPIAN program established a survival benefit from adding durvalumab to platinum-etoposide [5,6]. More recently, the phase 3 ADRIATIC trial showed that durvalumab after concurrent chemoradiotherapy prolonged overall and progression-free survival in patients with LS-SCLC whose disease had not progressed [7]. Current US labeling recommends durvalumab 1,500 mg every 4 weeks for patients weighing at least 30 kg, for up to 24 months, after concurrent platinum-based chemotherapy and radiotherapy [8]. Patient-reported outcome data from ADRIATIC further indicate that this strategy does not compromise global health status, functioning, or symptom burden compared with placebo [9].

The patient described here differs materially from the pivotal-trial population: chemotherapy and radiotherapy were delivered sequentially, durvalumab was administered using a local weight-based

Received: 23.07.2026 / Accepted: 31.07.2026

schedule, and treatment exposure was interrupted. An interim PET/CT was available after durvalumab initiation, but it did not permit a standardized objective response assessment. The purpose of this report is therefore not to claim efficacy, but to provide a transparent account of treatment delivery, symptom evolution, functional status, safety, and the available imaging findings in routine clinical practice. A previously published case from the same regional setting similarly highlighted the influence of diagnostic access and real-world treatment constraints on thoracic oncology care [10].

Materials and Methods

This manuscript is a descriptive clinical case report based on the available medical record, including chest and brain radiology reports, bronchoscopy and pathology documentation, multidisciplinary team decisions, treatment-administration records, and follow-up clinical notes. The report was structured according to the CARE case-report guideline [11].

Functional status was summarized using ECOG PS. Adverse events were graded using Common Terminology Criteria for Adverse Events (CTCAE) version 5.0 when sufficient clinical detail was available [12]. Formal EORTC QLQ-C30 questionnaires were not administered serially; accordingly, quality-of-life statements are restricted to documented symptoms and functional status rather than quantitative patient-reported outcomes [13].

Serial RECIST-compatible target-lesion measurements were not available. An interim ^{18}F-FDG PET/CT was performed after durvalumab initiation, but the report did not provide sufficient quantitative lesion measurements or metabolic parameters for a standardized response assessment. A RECIST 1.1 response category was therefore not assigned [14]. The term clinical stability is used only to reproduce the pre-durvalumab clinical-record interpretation and should not be read as an independently adjudicated radiological response.

The case was prepared within an institutional oncology research framework approved by the Ethics Committee of Khoja Ahmed Yasawi International Kazakh-Turkish University (Protocol No. 46, 22 October 2025). The patient provided written informed consent for publication of anonymized clinical information and images.

Case Presentation

Initial presentation and diagnostic work-up

At the time of the initial radiological diagnosis, the patient was a 54-year-old man who reported marked generalized weakness, persistent dry cough, and pain in the right hemithorax. ECOG PS was 2. He reported smoking for approximately one month at the age of 20 and no tobacco use thereafter; he was a current non-smoker at presentation.

Screening fluorography in November 2024 showed enlargement of the right lung root. Contrast-enhanced chest CT on 28 November 2024 demonstrated a central lesion in the right hilar/upper-lobe region and described thoracic lymphadenopathy. Video bronchoscopy on 30 January 2025 showed extrinsic compression of the right upper-lobe bronchus and right main bronchus. Histological examination of biopsy material No. 1784-85 confirmed small-cell carcinoma.

The clinical chart recorded the diagnosis as right-lung SCLC, cT2aN1M0, stage IIB. The original nodal-station measurements were not available for independent re-adjudication. Non-contrast brain MRI on 1 December 2024 showed no intracranial mass, perifocal oedema, or diffusion restriction; only small chronic-appearing white-matter foci and periventricular changes were described. No

Received: 23.07.2026 / Accepted: 31.07.2026

intracranial metastasis was reported. However, the absence of gadolinium contrast limited sensitivity for small metastases, and the intracranial component of M0 could not be verified with a contrast-enhanced staging study.

Multimodal treatment before durvalumab

Following multidisciplinary review (MDT decision No. 66), the patient received six courses of a platinum-etoposide regimen between February and August 2025. The available source record did not specify the platinum compound, individual doses, or dose modifications. Baseline ^{18}F-FDG PET/CT dated 23 May 2025 showed a poorly marginated right hilar/upper-lobe consolidation partially narrowing adjacent bronchi, with moderate uptake (SUVmax 2.7). Moderately metabolically active enlarged mediastinal lymph nodes were considered indeterminate between reactive change and secondary involvement. No other pathological tracer uptake was reported in the imaged field.

Thoracic radiotherapy was subsequently delivered sequentially under MDT decision No. 400 and was completed on 10 November 2025. The total dose was reported as 60 Gy; the start date, dose per fraction, and fractionation schedule were not available in the source record. Prophylactic cranial irradiation was not documented as performed, and the rationale was not recorded.

A contrast-enhanced chest CT acquired on 27 December 2025 and entered in the clinical record on 29 December 2025 was described as showing stable thoracic findings after chemotherapy and radiotherapy. Exact target-lesion measurements were unavailable. At that time, the patient continued to report fatigue, cough, dyspnea on minimal exertion, and right-sided chest pain, with ECOG PS 2. A representative axial image is shown in Figure 1.

Received: 23.07.2026 / Accepted: 31.07.2026

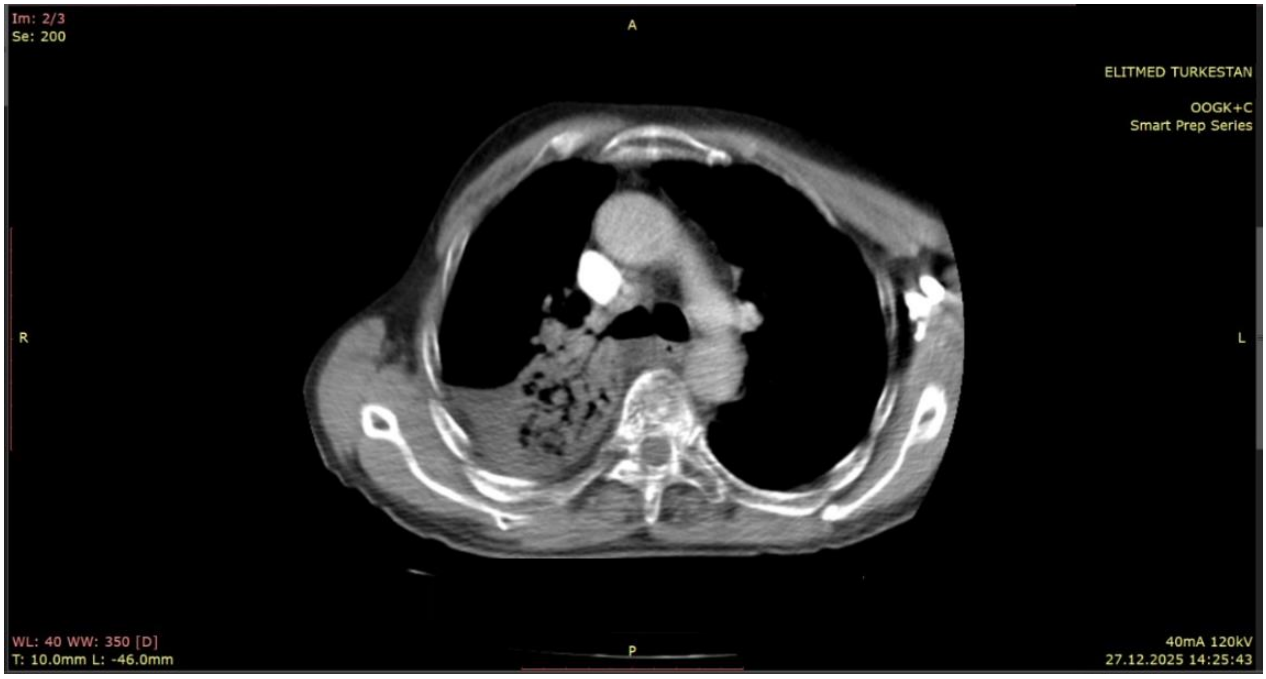

Figure 1. Representative axial contrast-enhanced chest CT image acquired on 27 December 2025 after chemotherapy and thoracic radiotherapy and before durvalumab initiation. The image is provided for clinical context; RECIST-compatible target-lesion measurements were unavailable. Patient-identifying information was removed. Source: authors' clinical archive.

Durvalumab treatment exposure

The case was re-discussed by the multidisciplinary team. In the setting of chart-recorded limited-stage SCLC, no documented clinical progression after sequential multimodal treatment, persistent respiratory symptoms, and ECOG PS 2, durvalumab was initiated as post-radiotherapy consolidation under local clinical decision-making.

The local treatment record documented a weight-based order of 10 mg/kg and an administered dose of 500 mg intravenously every 2 weeks. Six infusions were given on 3 February, 17 February, 3 March, 17 March, 22 May, and 5 June 2026. The first four infusions followed the planned schedule. A 66-day interval then occurred between infusions 4 and 5 because the patient missed scheduled visits; available records did not attribute the interruption to toxicity.

This exposure should not be interpreted as equivalent to the contemporary LS-SCLC label, which is based on concurrent chemoradiotherapy and recommends a fixed dose of 1,500 mg every 4 weeks for patients weighing at least 30 kg [8]. The actual local dose, interval, treatment gap, and cumulative exposure are reported to preserve clinical transparency.

An interim ^{18} F-FDG PET/CT examination performed on 22 April 2026, after four durvalumab infusions and during the interval before infusion 5, demonstrated subsegmental atelectatic and fibrotic changes in the right lung with traction bronchiectasis and diffuse low-grade FDG uptake, as well as post-radiation fibrotic changes in both lungs. Metabolically active mediastinal lymph nodes were interpreted as probably inflammatory and post-radiation in origin. Compared with PET/CT dated 23 May 2025, a new metabolically active focus of increased density was identified in the roof of the left

Received: 23.07.2026 / Accepted: 31.07.2026

acetabulum and was considered potentially secondary in nature. A further focus of increased FDG uptake was present in the C7 vertebral body without definite destruction. A small right pleural effusion had developed, while a mildly metabolically active left supraclavicular lymph node was considered more likely reactive. The report recommended oncological consultation and CT follow-up after 2 months. No confirmatory examination was available in the source record.

Clinical timeline

Date / period	Clinical event
November 2024	Screening fluorography showed enlargement of the right lung root.
28 November–1 December 2024	Contrast-enhanced chest CT showed a central right hilar/upper-lobe lesion and thoracic lymphadenopathy. Non-contrast brain MRI reported no intracranial mass or diffusion restriction and no metastasis, but sensitivity was limited without gadolinium.
30 January 2025	Bronchoscopy demonstrated extrinsic compression of the right upper-lobe and right main bronchi; biopsy No. 1784-85 confirmed small-cell carcinoma.
February-August 2025	Six courses of platinum-etoposide chemotherapy were administered.
23 May 2025	Baseline ^{18}F-FDG PET/CT showed a right hilar/upper-lobe consolidation with moderate uptake (SUVmax 2.7), indeterminate moderately active mediastinal lymph nodes, and no other pathological uptake in the imaged field.
10 November 2025	Sequential thoracic radiotherapy was completed; reported total dose 60 Gy. Fractionation details were unavailable.
27/29 December 2025	Chest CT was acquired on 27 December and recorded on 29 December as showing clinically stable thoracic findings. Exact RECIST measurements were unavailable.
3 February-17 March 2026	Durvalumab infusions 1-4 were administered at 500 mg IV every 2 weeks.
17 March-22 May 2026	Unplanned 66-day interval because of missed scheduled visits; no toxicity-related cause was documented.
22 April 2026	Interim ^{18}F-FDG PET/CT after four durvalumab infusions showed predominantly post-radiation thoracic changes, a new metabolically active focus in the left acetabulum considered potentially secondary, a new FDG-avid C7 focus without definite destruction, and a small right pleural effusion. Oncological consultation and interval CT were recommended.
22 May and 5 June 2026	Durvalumab infusions 5 and 6 were administered.

Received: 23.07.2026 / Accepted: 31.07.2026

Date / period	Clinical event
Follow-up through 5 June 2026	ECOG PS improved from 2 to 1; respiratory symptoms and chest pain improved; grade 1 pruritus occurred; no documented grade 3-4 immune-related adverse event. Interim PET/CT findings raised concern for possible extracranial progression but remained unconfirmed.

Table 1. Timeline of diagnosis, multimodal treatment, durvalumab exposure, and follow-up. Source: compiled from the available clinical record.

Treatment Outcome and Safety

Clinical follow-up was available through the sixth durvalumab infusion on 5 June 2026. The patient described less frequent cough, easier breathing during light activity, and substantial relief of right-sided chest pain. General weakness diminished, and ECOG PS improved from 2 to 1. These changes were clinically meaningful to the patient, but the available record cannot separate the effects of delayed recovery from chemotherapy and radiotherapy, supportive care, natural symptom fluctuation, and durvalumab-associated disease control.

No new symptoms or examination findings clearly suggesting clinical progression were documented during the observed period. Nevertheless, the interim PET/CT of 22 April 2026 revealed newly developed metabolically active osseous foci in the left acetabulum and C7 vertebral body, raising concern for possible extracranial progression despite clinical improvement. Because these findings were not confirmed by dedicated CT, MRI, biopsy, or subsequent imaging and RECIST-compatible measurements were unavailable, neither objective tumour response nor confirmed progression could be assigned. Baseline non-contrast brain MRI did not report metastases, but no contrast-enhanced staging brain study or post-treatment brain imaging was available.

Treatment was generally tolerated. A transient grade 1 pruritus episode was managed symptomatically without discontinuation. No documented grade 3-4 immune-related adverse events occurred, including no clinically apparent severe pneumonitis or colitis. The predominantly post-radiation thoracic changes on interim PET/CT did not exclude subclinical radiological toxicity or allow confident separation of radiation injury, inflammation, and treatment-related pulmonary effects. Continued monitoring for respiratory, gastrointestinal, hepatic, endocrine, and dermatologic immune-related events remains appropriate.

Symptom, functional, and safety dynamics

Parameter	Before durvalumab	During follow-up through 5 June 2026
Tobacco exposure	Approximately one month of smoking at age 20; no subsequent use.	Current non-smoker; exposure recorded descriptively without etiologic inference.
Fatigue / asthenia	Marked weakness limiting routine activity.	Weakness reduced; tolerance of light activity improved.

Received: 23.07.2026 / Accepted: 31.07.2026

Parameter	Before durvalumab	During follow-up through 5 June 2026
Cough	Persistent dry cough affecting comfort.	Less frequent and no longer the dominant symptom.
Dyspnea	Dyspnea with minimal exertion.	Breathing became easier during light activity.
Chest pain	Right-sided pain, aggravated by breathing.	Resolved or became minimal; regular analgesia was not reported.
ECOG PS	ECOG PS 2.	ECOG PS 1.
Durvalumab exposure	Planned local regimen: 500 mg IV every 2 weeks.	Six infusions; 66-day gap between infusions 4 and 5.
Safety	Post-chemotherapy and post-radiotherapy symptom burden.	Grade 1 pruritus; no documented grade 3-4 immune-related adverse event.
Radiological assessment	Baseline PET/CT: right hilar/upper-lobe lesion, SUVmax 2.7; mediastinal nodes indeterminate; no other pathological uptake in the imaged field. Baseline non-contrast brain MRI reported no metastasis, with limited sensitivity without gadolinium. Pre-durvalumab chest CT was described as clinically stable.	Interim ^{18}F-FDG PET/CT after four infusions showed predominantly post-radiation thoracic changes and new indeterminate metabolically active foci in the left acetabulum and C7 vertebral body. No RECIST response category or confirmed progression was assigned.

Table 2. Documented symptom, functional, treatment-exposure, safety, and imaging status before and during durvalumab treatment.

Discussion

The principal value of this case lies in its patient-centered chronology. During the available follow-up, cough, dyspnea, chest pain, and functional limitation improved, while treatment was not complicated by a documented high-grade immune-related adverse event. For a patient recovering from prolonged multimodal therapy, a one-point improvement in ECOG PS can represent a meaningful return of independence. However, symptom improvement alone cannot establish tumour response. In this patient, clinical improvement coexisted with new indeterminate metabolically active osseous foci on interim PET/CT, underscoring that symptom relief and functional recovery should not be used as surrogate evidence of tumour control.

The evidence base for durvalumab in LS-SCLC comes from ADRIATIC, in which patients without progression after concurrent platinum-based chemoradiotherapy received durvalumab every 4 weeks for up to 24 months [7]. The current FDA label reflects that population and schedule [8]. In contrast, this patient received chemotherapy and thoracic radiotherapy sequentially, followed by a

Received: 23.07.2026 / Accepted: 31.07.2026

locally implemented 500-mg every-2-week regimen. Only six infusions were administered, and exposure was interrupted for 66 days. The case therefore cannot be regarded as a replication of ADRIATIC or as evidence supporting equivalence of the local regimen.

The absence of formal quality-of-life instruments also shapes interpretation. ADRIATIC patient-reported outcome analyses found that consolidation durvalumab did not worsen global health status, functioning, or symptoms compared with placebo [9]. In the present case, the available evidence is more modest: symptoms were documented qualitatively and ECOG PS improved from 2 to 1. These findings are clinically relevant but remain vulnerable to recall, observer, and attribution bias.

Imaging and staging limitations are particularly important. The chart recorded cT2aN1M0, stage IIB, but the nodal stations could not be independently reviewed. Baseline non-contrast brain MRI on 1 December 2024 did not report intracranial metastases; nevertheless, omission of gadolinium reduced sensitivity for small lesions and no subsequent brain imaging was available. Baseline PET/CT showed the right hilar/upper-lobe lesion with moderate uptake (SUVmax 2.7) and indeterminate mediastinal nodes. The pre-durvalumab CT was described as stable, yet target-lesion measurements were unavailable. Interim PET/CT after four durvalumab infusions demonstrated predominantly post-radiation thoracic changes but also identified new metabolically active foci in the left acetabulum and C7 vertebral body. The acetabular focus was considered potentially secondary in nature, whereas the C7 focus showed no definite osseous destruction. Without dedicated confirmation, these findings cannot be classified as proven metastases, but possible extracranial progression cannot be excluded [14].

The patient's very limited, remote tobacco exposure is noteworthy because SCLC is strongly associated with smoking, but exposure history in an individual case should be reported without etiologic overinterpretation [2,3]. This observation does not permit inference regarding causation or tumor biology.

From a safety perspective, grade 1 pruritus was manageable and no severe immune-mediated toxicity was documented. Nevertheless, the combination of prior thoracic radiotherapy, respiratory symptoms, predominantly post-radiation pulmonary changes, and a small right pleural effusion requires caution. Pneumonitis may be caused by radiation, immunotherapy, infection, or tumour progression, and clinical symptoms alone may not reliably distinguish these possibilities. Structured symptom review and timely imaging remain essential during ongoing follow-up.

The strengths of the report are its detailed treatment dates, transparent description of the non-standard sequence and dosing, explicit reporting of the interruption, inclusion of baseline brain MRI and serial PET/CT findings, and conservative interpretation of clinical outcomes.

Limitations. This report has several important limitations. It describes a single patient and cannot establish causality or support generalization regarding durvalumab efficacy. Chemotherapy and thoracic radiotherapy were delivered sequentially, the locally implemented durvalumab dose and schedule differed from the contemporary evidence-based regimen, exposure was limited to six infusions, and a 66-day interruption occurred between infusions 4 and 5. Objective response assessment was incomplete because serial RECIST-compatible target-lesion measurements, lesion dimensions, and sufficient quantitative metabolic parameters were unavailable. Baseline PET/CT showed moderate uptake in the primary lesion (SUVmax 2.7), but the mediastinal nodes were

Received: 23.07.2026 / Accepted: 31.07.2026

indeterminate between reactive and secondary involvement. The new metabolically active foci in the left acetabulum and C7 vertebral body were not confirmed by dedicated CT, MRI, biopsy, or subsequent follow-up imaging. Consequently, neither objective response nor confirmed progression could be assigned. Baseline brain MRI was performed without contrast; although no intracranial metastasis was reported, small lesions could not be excluded with the sensitivity of a contrast-enhanced staging examination. No subsequent brain imaging was available, and documentation of prophylactic cranial irradiation was incomplete. Finally, symptom changes and ECOG PS were derived from routine clinical records rather than serial validated patient-reported outcome instruments. Delayed recovery from chemotherapy and radiotherapy, supportive care, natural symptom fluctuation, and other unmeasured factors may have contributed to the observed improvement, which therefore cannot be attributed specifically to durvalumab.Conclusion. In this real-world case, durvalumab administered after sequential platinum-etoposide chemotherapy and thoracic radiotherapy was accompanied by reduced respiratory symptoms, relief of chest pain, and improvement in ECOG PS from 2 to 1, with grade 1 pruritus and no documented grade 3–4 immune-related adverse event through 5 June 2026. Baseline non-contrast brain MRI did not report intracranial metastases, although its staging sensitivity was limited. Interim PET/CT performed after four infusions showed predominantly post-radiation thoracic changes but also revealed new indeterminate metabolically active foci in the left acetabulum and C7 vertebral body. These findings raised concern for possible extracranial progression but were not confirmed by dedicated imaging, biopsy, or subsequent follow-up. Accordingly, neither objective response nor confirmed progression could be assigned, and post-treatment intracranial status remained unassessed. The observation is best understood as a transparent account of treatment feasibility, tolerability, symptom dynamics, and functional recovery rather than evidence of tumour control or durvalumab efficacy.

Clinical Practice Points

• Real-world reports should clearly distinguish sequential from concurrent chemoradiotherapy.

• The exact durvalumab dose, interval, dates, treatment gaps, and cumulative exposure should be reported.

• Symptom relief and ECOG PS improvement are clinically meaningful but do not substitute for objective radiological assessment and may coexist with imaging findings suspicious for progression.

• Indeterminate new metabolically active lesions require anatomical correlation and interval confirmation before being classified as metastatic progression.

• After thoracic radiotherapy, respiratory symptoms require careful evaluation for tumor progression, radiation injury, infection, and immune-related pneumonitis.

Patient Perspective

According to the clinical record, the changes that mattered most to the patient were easier breathing, less frequent cough, relief of right-sided chest pain, and recovery of light daily activity. A direct patient quotation was not available.

Ethics and Declarations

Institutional Review Board Statement: The case was prepared within an institutional oncology research framework approved by the Ethics Committee of Khoja Ahmed Yasawi International Kazakh-Turkish University (Protocol No. 46, 22 October 2025).

Informed Consent Statement: Written informed consent for publication of anonymized clinical information and images was obtained from the patient.

Received: 23.07.2026 / Accepted: 31.07.2026

Funding: This research was supported by the program-targeted financing project "Development of innovative technologies and creation of modern infrastructure for sustainable development of the South Kazakhstan region" (No. BR24992814).

Conflict of Interest: The authors declare no conflict of interest.

Data Availability: The clinical data underlying this report are not publicly available because they contain protected health information. De-identified information may be considered upon reasonable request and subject to ethical and institutional approval.

Research Transparency: The authors take responsibility for the accuracy of the clinical chronology and interpretation presented in this report.

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Received: 23.07.2026 / Accepted: 31.07.2026