

Supplementary Materials

Bleomycin-Associated Pulmonary Toxicity in Adult Cancer Patients: Clinical Characteristics and Outcomes from a Single-Center Retrospective Cohort

Supplementary Table S1. STROBE checklist for cohort studies

Section/topic	Item no.	STROBE recommendation	Reported in manuscript
Title and abstract	1a	Indicate the study design with a commonly used term in the title or abstract.	Title; Abstract, Methods
Title and abstract	1b	Provide an informative and balanced summary of what was done and what was found.	Abstract
Introduction: Background/rationale	2	Explain the scientific background and rationale for the investigation.	Introduction, paragraphs 1–4
Introduction: Objectives	3	State specific objectives, including any prespecified hypotheses.	End of Introduction
Methods: Study design	4	Present key elements of study design early in the paper.	Methods, Study design and setting
Methods: Setting	5	Describe the setting, locations, and relevant dates, including periods of exposure, follow-up, and data collection.	Methods, Study design and setting; Study population (follow-up definition)
Methods: Participants	6a	Give eligibility criteria, and the sources and methods of participant selection.	Methods, Study population
Methods: Participants	6b	For matched studies, give matching criteria and number of exposed and unexposed.	Not applicable; this was not a matched cohort study
Methods: Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers.	Methods, Data collection; Outcome definitions
Methods: Data sources/measurement	8	For each variable of interest, give sources of data and details of assessment methods.	Methods, Data collection; Outcome definitions
Methods: Bias	9	Describe efforts to address potential sources of bias.	Methods, Outcome definitions; Discussion, Limitations
Methods: Study size	10	Explain how the study size was arrived at.	Methods, Study population (Study size); Results, patient screening statement
Methods: Quantitative variables	11	Explain how quantitative variables were handled in the analyses.	Methods, Statistical analysis
Methods: Statistical methods	12a	Describe all statistical methods, including those used to control for confounding.	Methods, Statistical analysis

Methods: Statistical methods	12b	Describe methods used to examine subgroups and interactions.	Results, Table 6; Methods, Statistical analysis
Methods: Statistical methods	12c	Explain how missing data were addressed.	Methods, Statistical analysis
Methods: Statistical methods	12d	Explain how loss to follow-up was addressed.	Methods, Study population; Discussion, Limitations
Methods: Statistical methods	12e	Describe any sensitivity analyses.	No formal sensitivity analysis was performed; exploratory subgroup results according to bleomycin indication are reported in Table 6.
Results: Participants	13a	Report numbers of individuals at each stage of the study.	Results, patient screening statement; Figure 1
Results: Participants	13b	Give reasons for non-participation at each stage.	Results, patient screening statement
Results: Participants	13c	Consider use of a flow diagram.	Figure 1
Results: Descriptive data	14a	Give characteristics of study participants.	Tables 1–3
Results: Descriptive data	14b	Indicate number of participants with missing data for each variable of interest.	Tables 3–5; Methods, Statistical analysis
Results: Descriptive data	14c	Summarize follow-up time.	Methods, Study population; follow-up duration was not consistently available as a structured variable and could not be reliably summarized; this limitation is also acknowledged in the Discussion.
Results: Outcome data	15	Report numbers of outcome events or summary measures over time.	Tables 4–8
Results: Main results	16a	Give unadjusted estimates and, if applicable, confounder-adjusted estimates with precision.	Tables 7–9
Results: Main results	16b	Report category boundaries when continuous variables are categorized.	Tables 6–8; Methods, Statistical analysis
Results: Main results	16c	If relevant, translate estimates of relative risk into absolute risk for a meaningful time period.	Not applicable
Results: Other analyses	17	Report other analyses done, including subgroup and sensitivity analyses.	Table 6; Table 9
Discussion: Key results	18	Summarize key results with reference to study objectives.	Discussion, first paragraph
Discussion: Limitations	19	Discuss limitations, including sources of potential bias or imprecision.	Discussion, Limitations paragraph
Discussion: Interpretation	20	Give a cautious overall interpretation considering objectives, limitations, multiplicity of analyses, and similar studies.	Discussion
Discussion: Generalizability	21	Discuss generalizability of the study results.	Discussion, Strengths and Limitations
Other information: Funding	22	Give the source of funding and role of funders.	Funding statement

Supplementary Table S2. Clinical details of patients with bleomycin-associated pulmonary toxicity

Patient	Age	Sex	Diagnosis	Bleomycin indication	Regimen	Documented cumulative bleomycin dose	Symptoms	CT findings	Post-bleomycin PFT	CTCAE grade	Oxygen	Hospitalized	Treatment modification	Recovery	Fibrosis
1	65	Male	Metastatic malignant pleural mesothelioma	Pleurodesis	Other	120 mg	SOB	NA	Not done	Grade 3	Yes	Yes	Alternative agent	Yes	No
2	37	Female	Ovarian cancer	Systemic anticancer therapy	BEP	140 mg	SOB	NA	Not done	Grade 3	Yes	Yes	Alternative regimen	Yes	No
3	48	Female	Breast cancer	Pleurodesis	Other	240 mg	SOB	NA	Not done	Grade 3	Yes	Yes	Alternative agent	No	Yes
4	30	Female	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	74.79 mg	SOB	Other: normal	Not done	Grade 3	Yes	Yes	Bleomycin omitted	Yes	No
5	51	Male	Colon cancer	Pleurodesis	Other	60 mg	SOB	NA	Not done	Grade 3	Yes	Yes	Alternative agent	Yes	No
6	27	Female	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	98.40 mg	SOB	NA	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
7	39	Female	Hemangiolioma	Sclerosing agent	Other	75 mg	SOB	NA	FVC	Grade 3	Yes	Yes	Bleomycin omitted	Yes	No
8	46	Male	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	160 mg	SOB, wheezing	Ground-glass	Not done	Grade 3	Yes	Yes	Bleomycin omitted	No	Yes
9	39	Female	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	20.81 mg	Severe cough, SOB	Ground-glass	Not done	Grade 3	Yes	Yes	Bleomycin omitted	Yes	No
10	24	Female	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	32.54 mg	Dyspnea	NA	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
11	49	Female	Germ cell tumor	Systemic anticancer therapy	BEP	390 mg	SOB	NA	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
12	20	Female	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	46.60 mg	SOB	Other: normal	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
13	57	Female	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	52.50 mg	Dyspnea, cough, chest discomfort	Other: inflammation	Not done	Grade 4	Yes	Yes	Bleomycin omitted	No	Yes
14	37	Female	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	103.07 mg	Mild cough	NA	DLCO	Grade 2	No	Yes	Bleomycin omitted	Yes	No
15	19	Male	Teratoma	Systemic anticancer therapy	BEP	180 mg	Dyspnea, cough	Ground-glass	Not done	Grade 3	Yes	Yes	Bleomycin omitted	No	Yes
16	39	Male	Teratoma	Systemic anticancer therapy	BEP	250 mg	SOB	Ground-glass	Not done	Grade 2	No	Yes	Alternative regimen	Yes	No
17	48	Female	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	188.6 mg	No symptoms	Ground-glass	Not done	Grade 1	No	No	NA	Yes	No
18	28	Male	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	157.2 mg	No symptoms	Ground-glass	Not done	Grade 1	No	No	Bleomycin omitted	Yes	No

19	23	Male	Mediastinal extra-gonadal yolk sac tumor	Systemic anticancer therapy	BEP	60 mg	SOB, dry cough	NA	DLCO	Grade 2	No	Yes	Bleomycin omitted	Yes	No
20	19	Male	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	59.1 mg	Dry cough	Ground-glass	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
21	26	Female	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	127.87 mg	Exertional dyspnea, mild cough	NA	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
22	34	Male	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	195.70 mg	Mild cough	NA	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
23	26	Male	Germ cell tumor	Systemic anticancer therapy	BEP	170 mg	Cough, painful breathing	NA	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
24	20	Male	Hodgkin lymphoma	Systemic anticancer therapy	ABVD	36.81 mg	Mild cough	NA	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
25	25	Male	Testicular cancer	Systemic anticancer therapy	BEP	90 mg	Cough	Reticulonodular	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
26	18	Male	Hodgkin lymphoma	Systemic anticancer therapy	Other	108.03 mg	SOB	Ground-glass	Not done	Grade 2	No	Yes	Bleomycin omitted	Yes	No
27	27	Male	Germ cell tumor	Systemic anticancer therapy	BEP	120 mg	Productive yellowish cough	Ground-glass	Not done	Grade 2	No	Yes	Bleomycin held	Yes	No

ABVD, doxorubicin, bleomycin, vinblastine, dacarbazine; BEP, bleomycin, etoposide, cisplatin; CT, computed tomography; CTCAE, Common Terminology Criteria for Adverse Events; DLCO, diffusing capacity of the lungs for carbon monoxide; FVC, forced vital capacity; NA, not available; PFT, pulmonary function test; SOB, shortness of breath. This supplementary table summarizes the clinical characteristics of patients classified as having bleomycin-associated pulmonary toxicity in the final study dataset.