

Supplementary

Table S1 The MeSH and entry terms of this study

ID	MeSH and entry terms
1#	“infection wound”[Title/Abstract] OR “infections wound”[Title/Abstract] OR “wound infections”[Title/Abstract] OR “wound infection”[Title/Abstract]
2#	((((Grafting, Lung[Title/Abstract] OR (Graftings, Lung[Title/Abstract])) OR (Lung Grafting[Title/Abstract])) OR (Lung Graftings[Title/Abstract])) OR (Transplantation, Lung[Title/Abstract])) OR (Lung Transplantations[Title/Abstract])) OR (Transplantations, Lung[Title/Abstract])

MeSH, Medical Subject Heading.

Table S2 The characteristic of the included studies

Study ID	Type of research	Patients characteristics	Surgery type	Findings summary
Force SD, 2006 (11)	Retrospective cohort study	28 patients (7 patients suffered DCC)	Bilateral lung transplantation	There were no wound infections in either group
Shields RK, 2013 (12)	Epidemiological study	586 patients (31 patients suffered SSI)	Lung transplantation	Forty-one pathogens were recovered from 31 patients Univariate analysis showed previous thoracic surgery (non-transplant), diabetes mellitus and obesity (P=0.0008, 0.005 and 0.048, respectively) Multivariate logistic regression showed that prior thoracic surgery and diabetes were identified as independent risk factors (P=0.001 and 0.009, respectively; 4.15- and 3.03-fold increased odds of SSI)
Aguilar PR, 2017 (13)	Retrospective cohort study	232 patients (22 patients suffered SSI)	Lung transplantation (67 patients suffered DCC)	One hundred and sixty-five recipients (71%) underwent PCC, and 67 recipients (29%) underwent DCC A SSI developed in 22 recipients (9%). Among the 67 who underwent DCC, 13 recipients (19%) experienced a SSI compared with 9 of the 165 recipients (5%) who underwent primary closure LAS at the time of transplantation and DCC were important risk factors for surgical site
Rafiroiu S, 2020 (14)	Retrospective cohort study	769 patients	Lung transplantation (47 patients suffered DCC)	Composite late infections (1–6 months) of <i>Clostridium difficile</i> , empyema or DSWIs at 1 and 6 months were 14% and 23% in the delayed group, and 11% and 18% in the PCC group (P=0.6), respectively
Pellenc Q, 2020 (15)	Retrospective cohort study	154 patients	Lung transplantation	The rates of groin healing delay and groin wound infection were significantly lower in the PFA group (0.9% and 0%, respectively) than in the non-PFA group (20.8% and 18.9%, P<0.001 for both comparisons)
Gatti G, 2020 (16)	Retrospective cohort study	843 patients	Lung transplantation	The DSWI occurred in 64 (5.7%) cases overall—in 4.3% (n=25) of BITA patients and in 7.3% (n=39) of SITA patients
Yeginsu A, 2021 (17)	Retrospective cohort study	60 patients	Bilateral lung transplantation	In the DCC group, postoperative wound infection was significantly higher than in the PCC group (18.6% vs. 0%, P=0.19)
Moraes JLS, 2020 (18)	Retrospective cohort study	121 patients (19 patients suffered SSI)	Lung transplantation	The incidence of primary SSIs was 15.7% (n=19). Of the 19 SSI cases, the most prominent topography was superficial incisional SSI (n=11; 57.8%), 1 (5.2%) case was deep incisional SSI, and 7 (36.8%) cases were organ/space SSI The median BMI was higher among recipients who developed SSI in comparison to those who did not: 24.4 (IQR, 22.3–25.8) and 22.5 (IQR, 19.0–25.6) kg/m ² , respectively (P=0.041). The median surgical time was 9.3 (IQR, 7.9–11.2) hours in the SSI group as compared to 8.7 (IQR, 7.5–9.5) hours in the non-SSI group (P=0.043). Moreover, the median duration of chest drain placement was 18 (IQR, 15–24) days among patients who developed SSI compared to 14 days among those who did not (IQR, 5–17 days; P=0.009)

DCC, delayed chest closure; SSI, surgical site infection; PCC, primary chest closure; LAS, lung allocation score; PFA, preclosing of the femoral artery; DSWI, deep sternal wound infection; BITA, bilateral internal thoracic artery; SITA, single internal thoracic artery; BMI, body mass index; IQR, interquartile range.