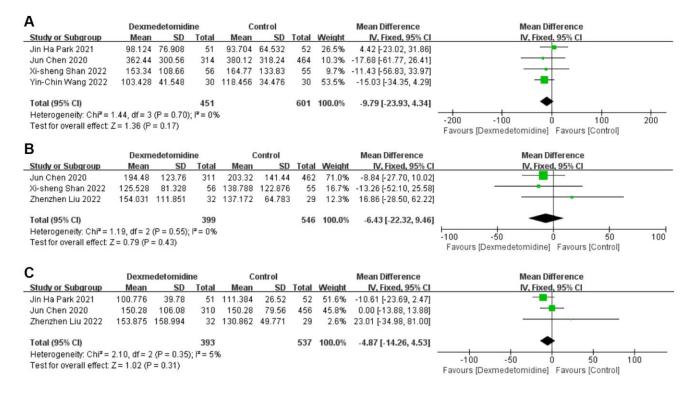
	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias	Comparability Outcome	Demonstration that Comparability of Assessment of Was follow-up Adequacy of	outcome of interest cohorts on the outcome long enough follow up of	sent at basis of the design	start of study or analysis to occur	*
Jin Ha Park 2021	•	•	•	•	•	•	•		Ascertain	ment of	exposure		*
Peng Yang 2020	•	•	•	•	•	•	•		Selection	of the non	exposed	cohort	
Sunder Negi 2014	•	•	•	•	•	•	•			the of	exp.	coh	*
Xi-sheng Shan 2022	•	•	•	•	•	•	•	Selection	Representative	ness of t	exposed .	cohort	
Yin-Chin Wang 2022 Zhenzhen Liu 2022	•	•	•	•	•	•	•	Se	Cohort studies Re	ne	ē	CC	Jun Chen * ,2020

Supplementary Figure 1. Quality evaluation results of the included studies.



Supplementary Figure 2. Forest plots of the effect of DEX on creatinine level at 7 days (A), 1 month (B) and 3 months (C) after RT.

Α	Dexm	edetomi	dine	c	control			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% Cl
Jun Chen 2020	53.1	26.5	311	51.8	26.3	462	67.2%	1.30 [-2.50, 5.10]	
Xi-sheng Shan 2022	65.1	24.1	56	63.3	27.4	55	10.5%	1.80 [-7.81, 11.41]	
Zhenzhen Liu 2022	33.23	12.9	31	35.05	13.16	29	22.3%	-1.82 [-8.42, 4.78]	
Total (95% CI)			398			546	100.0%	0.66 [-2.46, 3.77]	-
Heterogeneity: Chi ² = (0.71, df=	2 (P = 0.	70); I ^z =	0%					-10 -5 0 5 10
Test for overall effect: 2	Z=0.41 (P = 0.68))						Favours [Dexmedetomidine] Favours [Control]
									r avours (Dexinedetornidine) - r avours (Control)
В	Dexme	edetomi	line	с	ontrol			Mean Difference	Mean Difference
B Study or Subgroup	Dexme Mean	edetornio SD		C Mean	ontrol SD	Total	Weight	Mean Difference IV, Fixed, 95% Cl	Mean Difference IV, Fixed, 95% Cl
_						Total 52	Weight 17.0%		
Study or Subgroup	Mean	SD	Total	Mean	SD			IV, Fixed, 95% Cl	
Study or Subgroup Jin Ha Park 2021	Mean 66.85	SD 19.72	Total 51	Mean 67.19	SD 16.38	52	17.0%	IV, Fixed, 95% Cl -0.34 [-7.35, 6.67]	
Study or Subgroup Jin Ha Park 2021 Jun Chen 2020 Zhenzhen Liu 2022	Mean 66.85 63.8	SD 19.72 24.7	Total 51 310 31	Mean 67.19 64.2	SD 16.38 26.4	52 456 29	17.0% 62.3% 20.7%	IV, Fixed, 95% Cl -0.34 [-7.35, 6.67] -0.40 [-4.06, 3.26] -0.40 [-6.75, 5.95]	
<u>Study or Subgroup</u> Jin Ha Park 2021 Jun Chen 2020 Zhenzhen Liu 2022 Total (95% CI)	Mean 66.85 63.8 35.4	SD 19.72 24.7 12.23	Total 51 310 31 31	Mean 67.19 64.2 35.8	SD 16.38 26.4	52 456	17.0% 62.3% 20.7%	IV, Fixed, 95% Cl -0.34 [-7.35, 6.67] -0.40 [-4.06, 3.26]	
Study or Subgroup Jin Ha Park 2021 Jun Chen 2020 Zhenzhen Liu 2022 Total (95% CI) Heterogeneity: Chi ² =	<u>Mean</u> 66.85 63.8 35.4 0.00, df=	SD 19.72 24.7 12.23 : 2 (P = 1	Total 51 310 31 31 392 .00); I ²	Mean 67.19 64.2 35.8	SD 16.38 26.4	52 456 29	17.0% 62.3% 20.7%	IV, Fixed, 95% Cl -0.34 [-7.35, 6.67] -0.40 [-4.06, 3.26] -0.40 [-6.75, 5.95]	N. Fixed, 95% Cl
<u>Study or Subgroup</u> Jin Ha Park 2021 Jun Chen 2020 Zhenzhen Liu 2022 Total (95% CI)	<u>Mean</u> 66.85 63.8 35.4 0.00, df=	SD 19.72 24.7 12.23 : 2 (P = 1	Total 51 310 31 31 392 .00); I ²	Mean 67.19 64.2 35.8	SD 16.38 26.4	52 456 29	17.0% 62.3% 20.7%	IV, Fixed, 95% Cl -0.34 [-7.35, 6.67] -0.40 [-4.06, 3.26] -0.40 [-6.75, 5.95]	

Supplementary Figure 3. Forest plots of the effect of DEX on eGFR at 1 month (A) and 3 months (B) after RT.