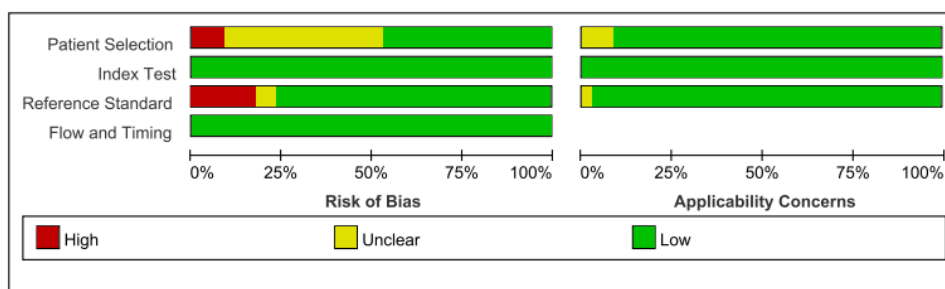
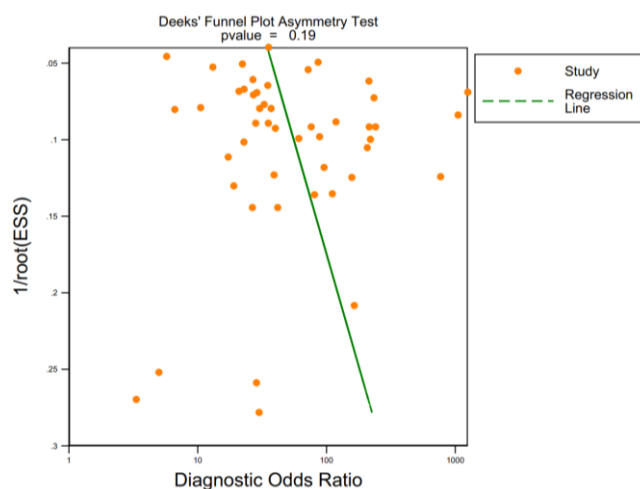


**Supplementary figure 1: Risk of bias for each risk of bias item in included studies**



**Supplementary figure 2: Publication bias**



Funnel plots suggested there was no publication bias

**Supplementary table: Meta-regression result**

Covariates	Subgroup	$\tau^2$	$I^2$	Adjusted- $R^2$	F value
Metastasis	Lymph node metastasis	81.8	33.99%	-13.27%	-
	Distant metastasis				
Tumor type	Head and neck tumor	80.6	30.57%	-11.62%	0.65
	Breast tumor				
	Others				
Image type	Bone scintigraphy	31.32	0.00%	56.63%	2.35
	CT				
	MRI				
	Ultrasound				
External validation	Yes	81.05	32.78%	-12.24%	-
	No				
Algorithm	Deep learning	79.26	35.17%	-9.76%	-
	Machine Learning				