

Supplementary files

Supplementary Table 1. Risk of Bias Assessment using Newcastle Ottawa Scale for cross-sectional studies

Study	Selection			Information bias			Overall Quality
	Representativeness of COVID-19 related patients	Selection of the patients without ocular manifestation from the same setting with patients with ocular manifestation	Overall participation rate $\geq 60\%$	Ocular manifestation assessed objective examination	PCR tears and nasopharyngeal examination using standardised or structured protocol	Ocular manifestation and PCR assessed in the same way for the entire study population	
Guan et al	No	Yes	Yes	Unclear	Yes	Yes	Good
Wu et al	Yes	Yes	Unclear	Unclear	Unclear	Yes	Moderate
Zhang et al	Unclear	Yes	Yes	Yes	Unclear	Yes	Good
Chen et al	No	Yes	No	Yes	Yes	n/a	Moderate
Kumar et al	Yes	Yes	Yes	Yes	Yes	Yes	Good
Zhou et al	No	Yes	Yes	Yes	Yes	Yes	Good
Deng et al	No	Unclear	Yes	No	Unclear	Yes	Poor
Karimi et al	No	Yes	Yes	Unclear	Yes	Yes	Good
Fang et al	No	yes	yes	Unclear	Unclear	Yes	Moderate

Supplementary Table 2. Risk of Bias Assessment using Newcastle Ottawa Scale for longitudinal studies

Study	Selection			Comparability		Outcome			Overall Quality
	Representativeness of the COVID-19 related patients	Selection of the patients without ocular manifestation from the same setting with patients with ocular manifestation	Ascertainment of exposure (ocular manifestation)	PCR tears was not present at start of study	Comparability of all patients with and without ocular manifestation on the basis of the design or analysis	Assessment of outcome (PCR tears or disease severity) all patient receive the same methods	Was follow-up long enough for outcomes to occur	Adequacy of follow up of all patients	
Xia et al	No	Yes	Unclear	Yes	Yes	Yes	Yes	Yes	Good
Valente et al	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Good
Seah et al	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Good
Xie et al	No	Unclear	Yes	Yes	n/a	Yes	No	Yes	Moderate
Grimaud et al	No	Yes	Unclear	n/a	Yes	No	No	Yes	Moderate

Supplementary Table 3. Risk of Bias Assessment for case series and case report studies

Study	Domains	Ascertainment		Causality		Reporting	Overall quality
	Does the patient(s) represent(s) the whole experience of the investigator (centre) or is the selection method unclear to the extent that other patients with similar presentation may not have been reported?	Was the exposure adequately ascertained? (the presence of ocular manifestation)	Was the outcome adequately ascertained? (PCR tears/elsewhere)	Were other alternative causes that may explain the observation ruled out?	Was follow-up long enough for outcomes to occur?	Is the case(s) described with sufficient details to allow other investigators to replicate the research or to allow practitioners make inferences related to their own practice?	
Chen et al	Unclear	Yes	Yes	Yes	Yes	Yes	Good
Cheema et al	Unclear	Yes	Yes	Yes	Yes	Yes	Good
Daruich et al	Unclear	Yes	Yes	No	Yes	Yes	Moderate
Chiotos et al	Yes	Yes	Yes	No	Yes	Yes	Good
Scalinci et al	Unclear	Yes	Yes	No	Yes	Yes	Moderate
Hu et al	No	Yes	Yes	Yes	Yes	Yes	Good
Navel et al	No	Yes	Yes	Yes	Yes	Yes	Good
Ying Ying et al	Unclear	Yes	Yes	No	Yes	Yes	Moderate
Salducci et al	Yes	Yes	Yes	No	Yes	Yes	Good
Wu et al	Unclear	Yes	Yes	Unclear	Yes	No	Moderate
Wolfler et al	No	Yes	No	No	Yes	No	Poor
Colavita et al	Unclear	Yes	Yes	Yes	Yes	Yes	Good
Xuejie et al	Unclear	Yes	Yes	Yes	Yes	Yes	Good
Ya et al	Yes	Yes	Yes	No	Yes	Yes	Good
Casalino et al	Unclear	No	Yes	No	No	Yes	Poor
Khavandi et al	Unclear	Yes	Yes	Yes	Yes	Yes	Good
Lu et al	No	No	Yes	No	No	No	Poor