

## **Supplementary Files:**

### **1. Supplementary Statements**

#### **PICO and study inclusion/exclusion criteria:**

##### **Participants:**

All patient with hidradenitis suppurativa (age, sex and other baseline characteristics were not limited)

##### **Intervention:** NA

##### **Comparison:**

All people without hidradenitis suppurativa (age, sex and other baseline characteristics were not limited)

##### **Outcomes:**

Liver diseases, subgroups including non-alcoholic fatty liver diseases, hepatitis B and hepatitis C

##### **Inclusion and exclusion criteria:**

Only studies meeting the PICO will be included. Articles not evaluating the prevalence of liver diseases in hidradenitis suppurativa and those without appropriate control group will be excluded from data extraction. For meta-analysis, only studies with similar adjustment model and study design will be pooled.

#### **Searching syntaxes:** Retrieved on 2021.12.12

Embase, n=414

(suppurative AND hidradenitis OR (acne AND inversa) OR (hidradenitis AND suppurativa)) AND (liver AND disease OR hepatitis OR (fatty AND liver) OR comorbidity) NOT review

Web of Science : n=65

((ALL=( hidradenitis suppurativa ) OR (ALL=(acne inversa))AND ((ALL=( liver disease ))OR (ALL=( hepatitis )) OR (ALL=( fatty liver) )OR (ALL=(comorbidity)))) NOT ALL=(Review)

Pubmed, n=223

(hidradenitis suppurativa OR acne inversa) AND (liver disease OR hepatitis OR fatty liver OR comorbidity) NOT review

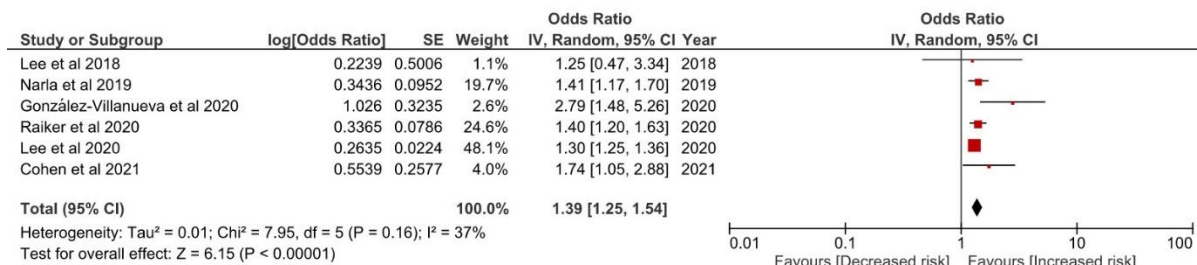
2. Supplementary Figures

	Adequacy of case definition	Representativeness of cases	Selection of controls	Definition of controls	Comparability of cases and controls	Ascertainment of exposure	Same method of ascertainment for cases and controls	Nonresponse rate
Cohen et al 2021	+	+	+	+	+	+	+	+
Durán-Vian et al 2019	+	+	+	+	+	+	+	+
González-Villanueva et al 2020	+	+	+	+	+	+	+	+
Lee et al 2018	?	+	+	+	?	?	+	+
Lee et al 2020	?	+	+	+	?	?	+	+
Narla et al 2019	?	+	+	+	+	?	?	?
Raiker et al 2020	?	?	+	+	+	?	?	?

Figure S1(a). Risk of bias assessment for cross-sectional and case-conrtrol studies

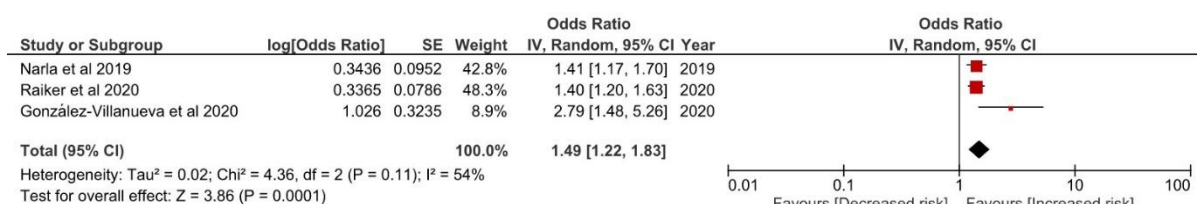
	Representativeness of exposed cohort	Selection of nonexposed cohort	Ascertainment of exposure	Comparability of cohorts	Outcome of interest not present at start of study	Assessment of outcome	Was follow-up long enough for outcomes to occur?	Adequacy of follow-up of cohorts
Kimball et al 2018	+	+	?	?	+	?	+	+

Figure S1(b). Risk of bias assessment for cohort studies



**Figure S2.** Sensitivity Analysis: Odds ratio of liver diseases in people with Hidradenitis Suppurativa

**Legends:** This model was designed to validate the HS-liver disease association. Representative of a population could be different between baseline of case-control studies and cross-sectional studies. Hence, the case-control study by **Durán-Vian et al** was not included in this sensitivity analysis since it was different from other included studies in this analysis.



**Figure S3.** Sensitivity Analysis: Odds ratio of NAFLD in people with Hidradenitis Suppurativa

**Legends:** This model was designed to validate the HS-NAFLD association. Representative of a population could be different between baseline of case-control studies and cross-sectional studies. Hence, the case-control study by **Durán-Vian et al** was not included in this sensitivity analysis since it was different from other included studies in this analysis.