http://doi.org/10.47626/1516-4446-2022-2962


## **Box S1** Search strategy

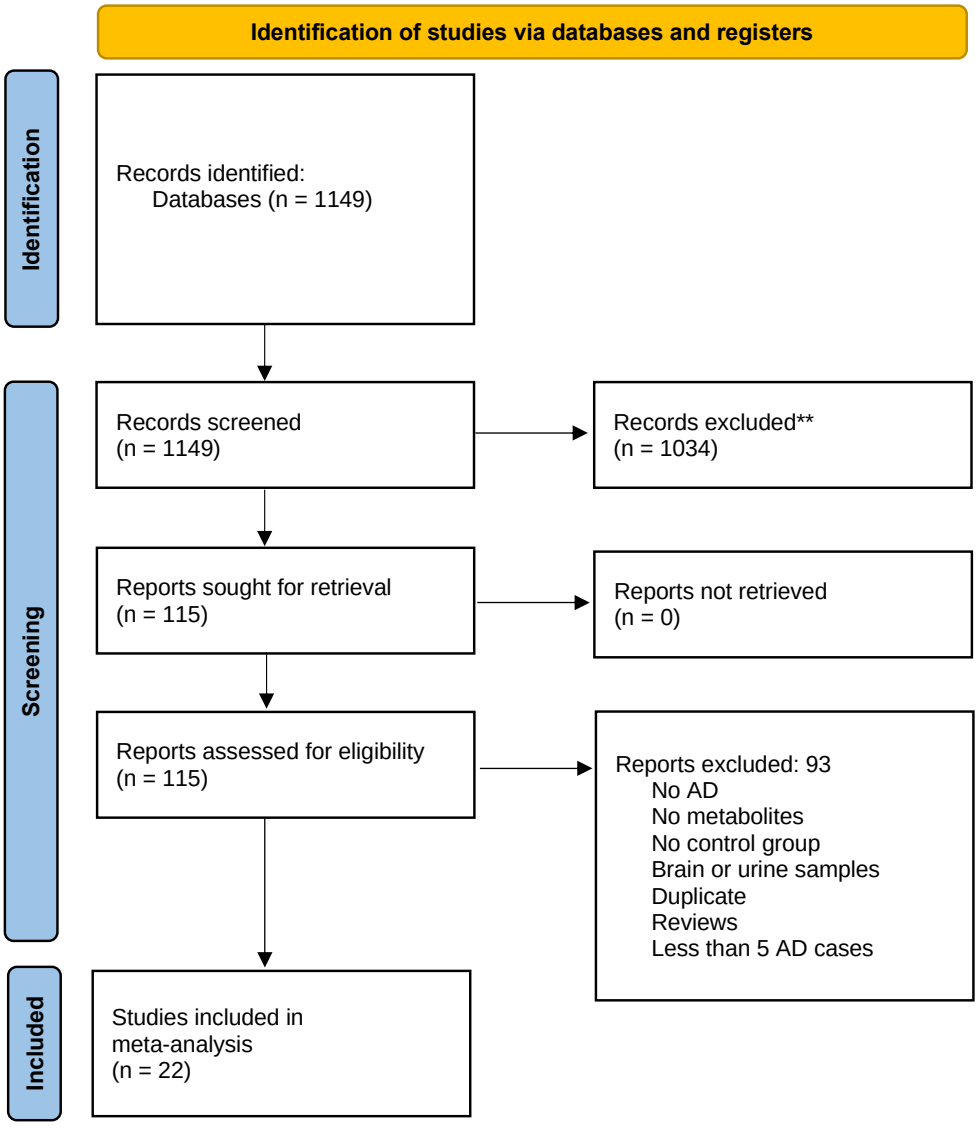
**Searches (March 24, 2022):**

**PubMed (n=604)**
(kynurenine OR "kynurenic acid" OR tryptophan OR IDO OR "indoleamine*" OR quinolinic acid OR 3-Hydroxykynurenine) AND ("Alzheimer*" OR Alzheimer OR MCI OR "mild cognitive impairment") AND (brain OR blood OR urine OR CSF OR cerebrospinal fluid)

**EMBASE (n=960)**
#1 ('kynurenine'/exp OR 'kynurenine' OR 'kynurenic acid'/exp OR 'kynurenic acid' OR 'tryptophan'/exp OR 'tryptophan' OR 'ido' OR 'indoleamine 2,3-dioxygenase'/exp OR 'indoleamine 2,3-dioxygenase' OR 'quinolinic acid'/exp OR 'quinolinic acid' OR '3-Hydroxykynurenine')
#2 ('alzheimer*' OR 'mci' OR 'mild cognitive impairment')
#3 ('brain' OR 'blood' OR 'urine' OR 'csf' OR 'cerebrospinal fluid')

#1 AND #2 AND #3

## **Figure S1** PRISMA 2020 flow diagram for new systematic reviews that include searches of databases and registers only



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**Table S1** Characteristics of the included studies

| Study/country | Subjects | Sex (M/F) | Age | Dx method | Lab method | TRP | KYN | 3-HK | QA | KA | KYN/TRP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Cerebrospinal fluid: 8 studies** | | | | | | | | | | | |
| González-Sánchez et al., 2020, Spain | 61 AD<br>23 HC | 24/37<br>15/8 | 72.4 ± 7.8<br>64.7 ± 10.8 | National Institute on Aging and the Alzheimer's Association guidelines | ELISA | NS | | | | ↑ | |
| Jacobs et al., 2019, Sweden | 20 AD<br>18 HC | 9/11<br>15/3 | 77.9 ± 7.5<br>73.1 ± 7.9 | NA | UHPLC<br>HPLC | NS | NS | NS | NS | ↑ | NS |
| Martinez et al., 1993, Spain | 13 AD<br>15 HC | 4/9<br>8/7 | 68.0 ± 6.0<br>66.0 ± 8.0 | NINCDS-ADRDA criteria | HPLC | NS | | | | | |
| Mourdian et al., 1989, United States | 35 AD<br>29 HC | NA | 64.0 ± 6.0<br>65.0 ± 9.0 | NINCDS-ADRDA criteria | Negative chemical ionization gas chromatography mass spectrometry | | | | NS | | |
| Tohgi et al., 1992, Japan | 14 AD<br>10 HC | NA | 68.4 ± 10.1<br>68.5 ± 6.1 | NINCDS-ADRDA criteria | HPLC | ↓ | ↓ | ↓ | | | NS |
| Tohgi et al., 1995, Japan | 15 AD<br>10 HC | NA | 68.0 ± 6.0<br>69.0 ± 6.0 | NINCDS-ADRDA criteria | HPLC | NS | NS | ↓ | | | |
| Wada et al., 1993, Japan | 13 AD<br>9 HC | NA | 74.3<br>79.1 | NINCDS-ADRDA criteria | NA | ↓ | NS | | | | |
| Wennström et al., 2014, Sweden | 19 AD<br>20 HC | 9/10<br>10/10 | 75.0<br>76.0 | NINCDS-ADRDA criteria | HPLC | | | | | NS | |
| **Peripheral blood (serum and plasma): 17 studies** | | | | | | | | | | | |
| Basun et al., 1990, Sweden | 22 AD<br>11 HC | 9/13<br>5/6 | 74.0 ± 9.0<br>79.0 ± 2.0 | DSM-III-R | Amino Acid Analyzer Plasma | NS | | | | | |
| Bonaccorso et al., 1998, Belgium | 13 AD<br>15 HC | 6/7<br>3/12 | 78.4 ± 10.3<br>78.3 ± 5.7 | DSM-III-R | HPLC Plasma | NS | | | | | |
| Fekkes et al., 1998, Netherlands | 14 AD<br>17 HC | 4/10<br>17/0 | 73.6 ± 6.7<br>70.1 ± 1.3 | DSM-III-R | HPLC Plasma | ↓ | | | | | |
| Forssell et al., 1989, Sweden | 16 AD<br>7 HC | 5/11<br>3/4 | 80.0 ± 4.0<br>79.0 ± 2.0 | DSM-III | Amino Acid Analyzer | ↓ | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Plasma | | | | | | | |
| Giil et al., 2017, Norway | 65 AD<br>65 HC | 35/30<br>32/33 | 74.3<br>81.70 | CERAD criteria | HPLC<br>Plasma | ↓ | ↓ | ↓ | ↓ | ↓ | NS |
| González-Sánchez et al., 2020, Spain | 61 AD<br>23 HC | 24/37<br>15/8 | 72.4 ± 7.8<br>64.7 ± 10.8 | NINCDS-ADRDA criteria | ELISA<br>Plasma | NS | | | | NS | |
| Greilberger et al., 2010, Austria | 16 AD<br>15 HC | 7/9<br>4/11 | 63.3 ± 13.7<br>62.8 ± 3.6 | NINCDS-ADRDA criteria | HPLC<br>Serum | ↓ | NS | | | | ↑ |
| Gulaj et al., 2010, Poland | 34 AD<br>18 HC | 10/24<br>5/13 | 78.8 ± 5.7<br>76.2 ± 7.3 | DSM-IV | HPLC<br>Plasma | ↓ | NS | NS | ↑ | ↓ | ↑ |
| Hartai et al., 2007, Hungary | 28 AD<br>31 HC | 6/22<br>10/21 | 77.0 ± 6.3<br>73.0 ± 8.3 | NINCDS-ADRDA criteria | HPLC<br>Plasma | | NS | | | ↓ | |
| Jacobs et al., 2019, Sweden | 20 AD<br>18 HC | 9/11<br>15/3 | 77.9 ± 7.5<br>73.1 ± 7.9 | NA | UHPLC<br>HPLC<br>Plasma | NS | NS | NS | NS | NS | NS |
| Klatt et al., 2021, Australia | 28 AD<br>93 HC | 8/20<br>49/44 | 74.0 ± 8.2<br>75 ± 9.0 | NA | Mass spectrometry<br>Serum | ↓ | ↓ | ↓ | | | |
| Martinez et al., 1993, Spain | 13 AD<br>15 HC | 4/9<br>8/7 | 68.0 ± 6.0<br>66.0 ± 8.0 | NINCDS-ADRDA criteria | HPLC<br>Serum | NS | | | | | |
| Oxenkrug et al., 2017, United States | 20 AD<br>24 HC | 8/12<br>12/12 | 60 to 75<br>60 to 75 | NA | HPLC<br>Plasma | NS | NS | ↑ | | NS | NS |
| Schwarz et al., 2013, Germany | 20 AD<br>19 HC | 4/16<br>11/8 | 74.0 ± 7.6<br>59.5 ± 10.2 | NINCDS-ADRDA criteria | HPLC<br>Serum | NS | NS | ↑ | NS | NS | |
| Shao et al., 2020, China | 74 AD<br>137 HC | 30/44<br>76/61 | 71.8 ± 1.5<br>67.3 ± 1.0 | NINCDS-ADRDA criteria | UPLC<br>Plasma | ↓ | | | | | |
| Whiley et al., 2021, England | 103 AD<br>86 HC | 50/53<br>42/44 | 76.5 ± 6.0<br>76.0 ± 5.7 | NINCDS-ADRDA criteria | UHPLC-MS<br>Serum | ↓ | ↓ | NS | NS | NS | NS |
| Widner et al., 2000, Austria | 21 AD<br>20 HC | 6/15<br>10/10 | 74.4 ± 5.4<br>73.4 ± 7.4 | NINCDS-ADRDA criteria | HPLC<br>Serum | ↓ | ↑ | | | | ↑ |

3-HK = 3-hydroxykynurenine; AD = Alzheimer's disease; dx = diagnosis; HC = healthy controls; HPLC = high-performance liquid chromatography; KA = kynurenic acid; KYN = kynurenine; KYN/TRP = kynurenine-to-tryptophan; M/F = male/female; NA = not applicable; NINCDS-ADRDA = National Institute of Neurological and Communicative Diseases and Stroke/Alzheimer's Disease and Related Disorders Association; NS = non-significant; QA = quinolinic acid; TRP = tryptophan.

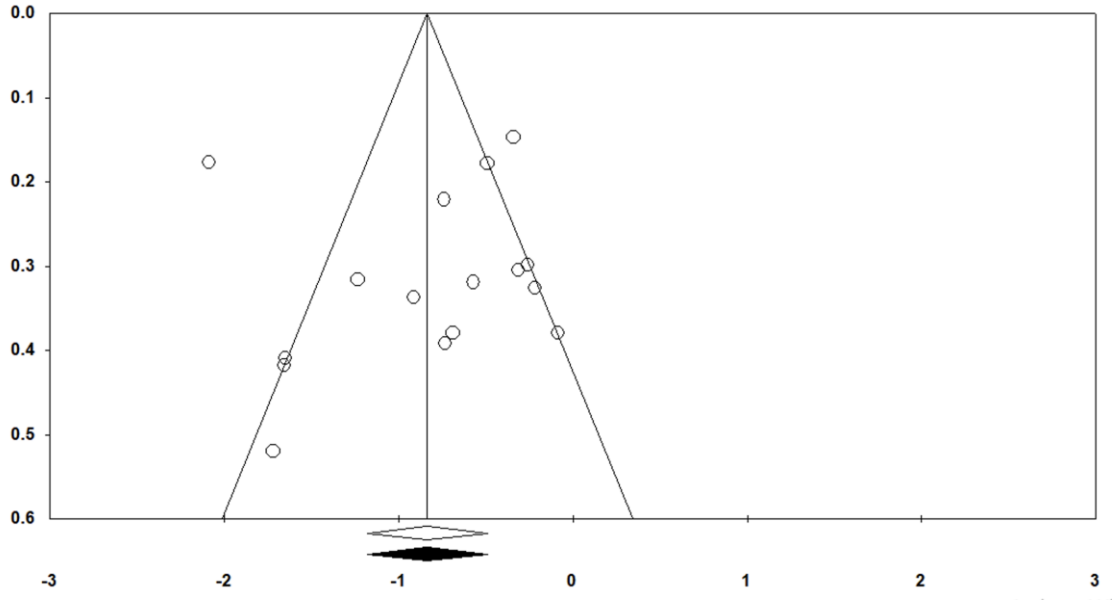
http://doi.org/10.47626/1516-4446-2022-2962
The kynurenine pathway in Alzheimer's disease: a meta-analysis of central and peripheral levels - Fernandes et al.

**Table S2** Newcastle-Ottawa Scale: quality assessment of studies according to risk of bias

| Study/country | Selection | Comparability | Exposure | Total |
|---|---|---|---|---|
| Basun et al., 1990, Sweden | ** | * | ** | 5 |
| Bonaccorso et al., 1998, Belgium | ** | * | ** | 5 |
| Fekkes et al., 1998, Netherlands | ** | * | ** | 5 |
| Forssell et al., 1989, Sweden | * | * | ** | 4 |
| Giil et al., 2017, Norway | *** | * | ** | 6 |
| González-Sánchez et al., 2020, Spain | **** | - | ** | 6 |
| Greilberger et al., 2010, Austria | ** | - | * | 3 |
| Gulaj et al., 2010, Poland | ** | * | ** | 5 |
| Hartai et al., 2007, Hungary | ** | - | * | 3 |
| Jacobs et al., 2019, Sweden | * | * | ** | 4 |
| Klatt et al., 2021, Australia | * | - | ** | 3 |
| Martinez et al., 1993, Spain | ** | - | * | 3 |
| Mourdian et al., 1989, United States | ** | - | * | 3 |
| Oxenkrug et al., 2017, United States | * | - | - | 1 |
| Schwarz et al., 2013, Germany | *** | * | ** | 5 |
| Shao et al., 2020, China | *** | - | * | 4 |
| Tohgi et al., 1992, Japan | * | * | * | 3 |
| Tohgi et al., 1995, Japan | * | * | * | 3 |
| Wada et al., 1993, Japan | * | * | * | 3 |
| Wennström et al., 2014, Sweden | *** | * | ** | 6 |
| Whiley et al., 2021, England | *** | * | ** | 6 |
| Widner et al., 2000, Austria | ** | * | ** | 5 |

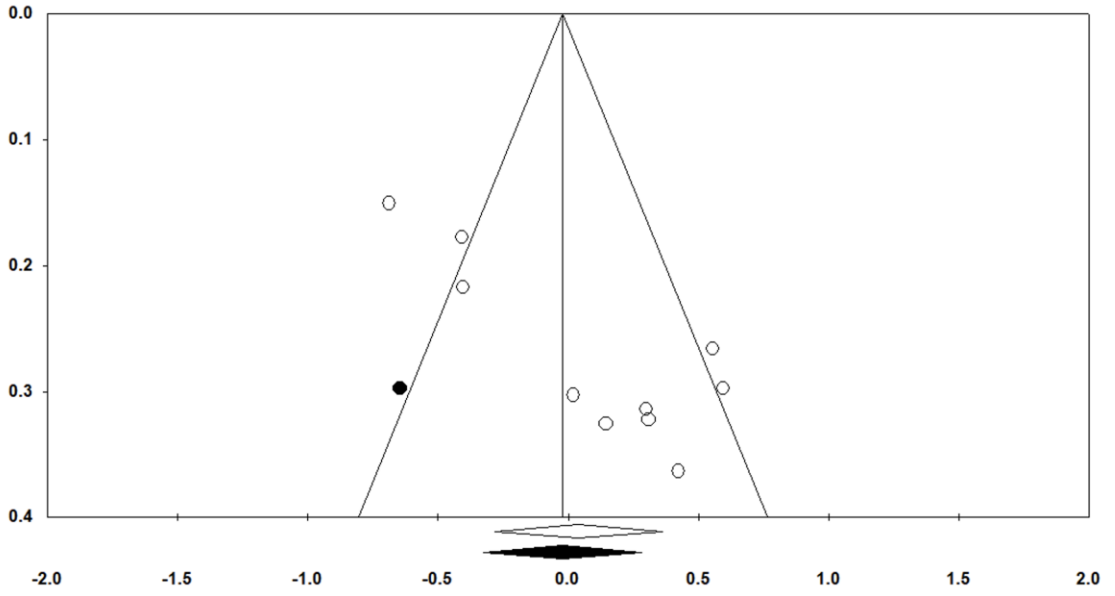
http://doi.org/10.47626/1516-4446-2022-2962
The kynurenine pathway in Alzheimer's disease: a meta-analysis of central and peripheral levels - Fernandes et al.

**Figure S2** Tryptophan in peripheral blood: funnel plot of cross-sectional studies




There was no missing study according to the trim-and-fill method (black diamond).

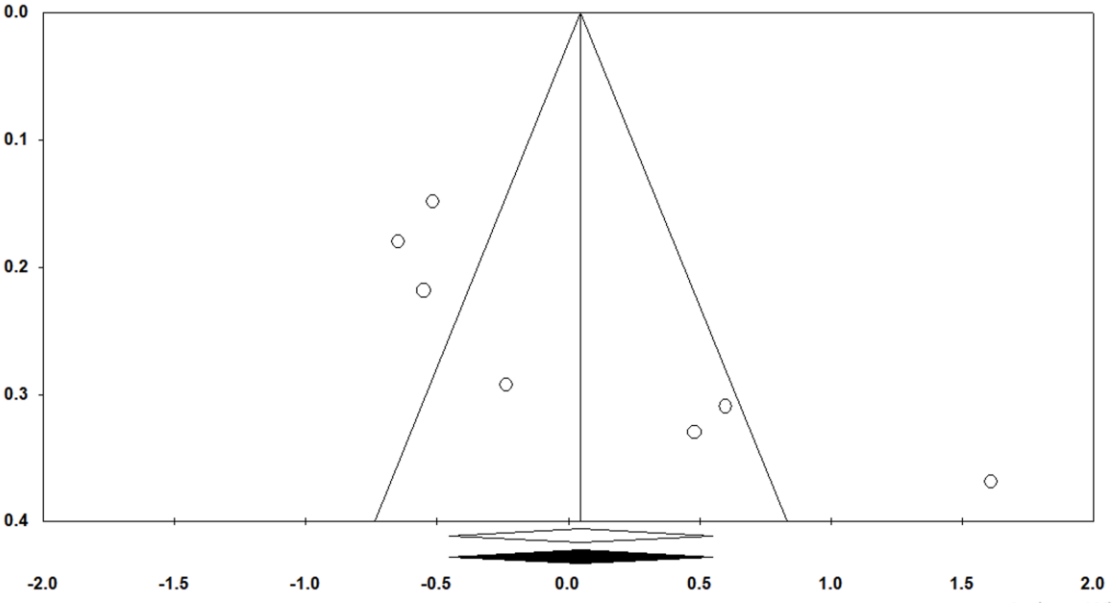
**Figure S3** Kynurenine in peripheral blood: funnel plot of cross-sectional studies




There was one missing studies according to the trim-and-fill method (black diamond). The results remained non-significant after imputation.

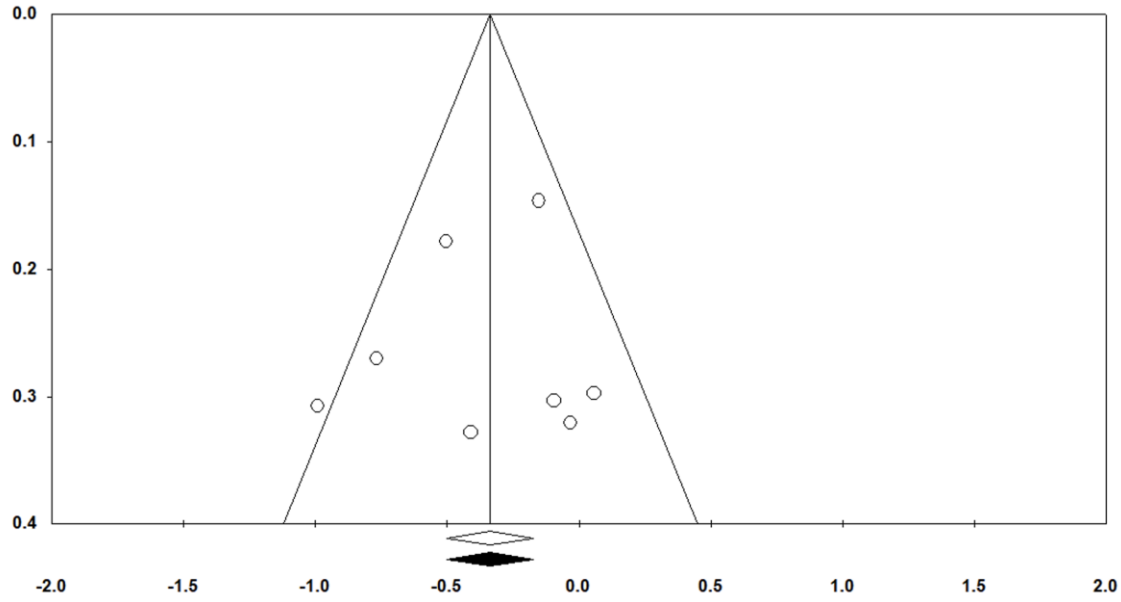
http://doi.org/10.47626/1516-4446-2022-2962


**Figure S4** 3-Hydroxykynurenine in peripheral blood: funnel plot of cross-sectional studies




There was no missing study according to the trim-and-fill method (black diamond).

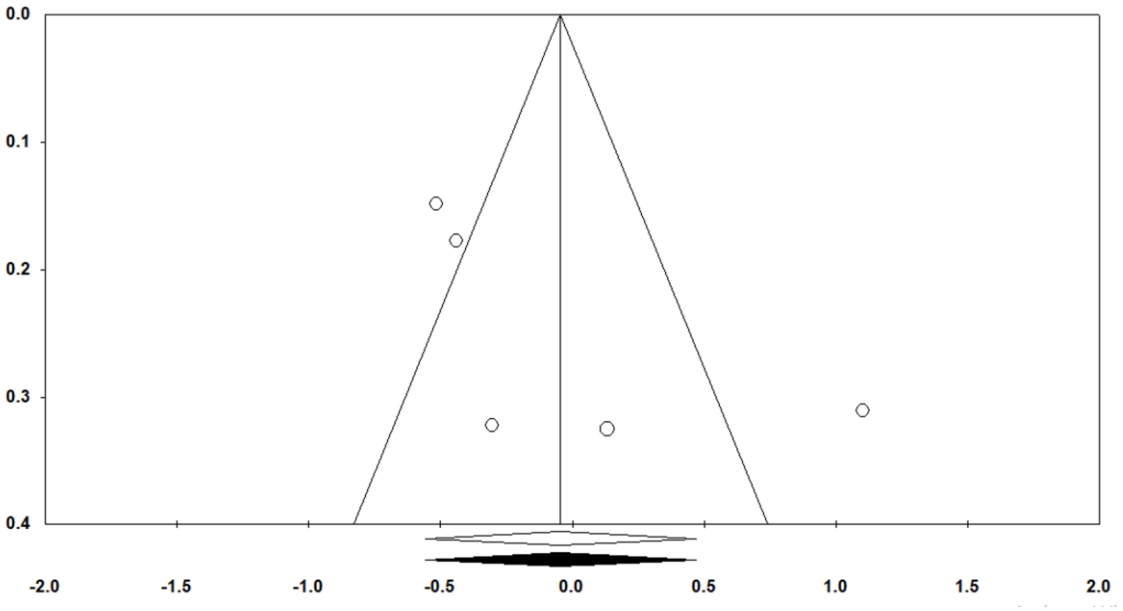
**Figure S5** Kynurenic acid in peripheral blood: funnel plot of cross-sectional studies




There was no missing study according to the trim-and-fill method (black diamond).

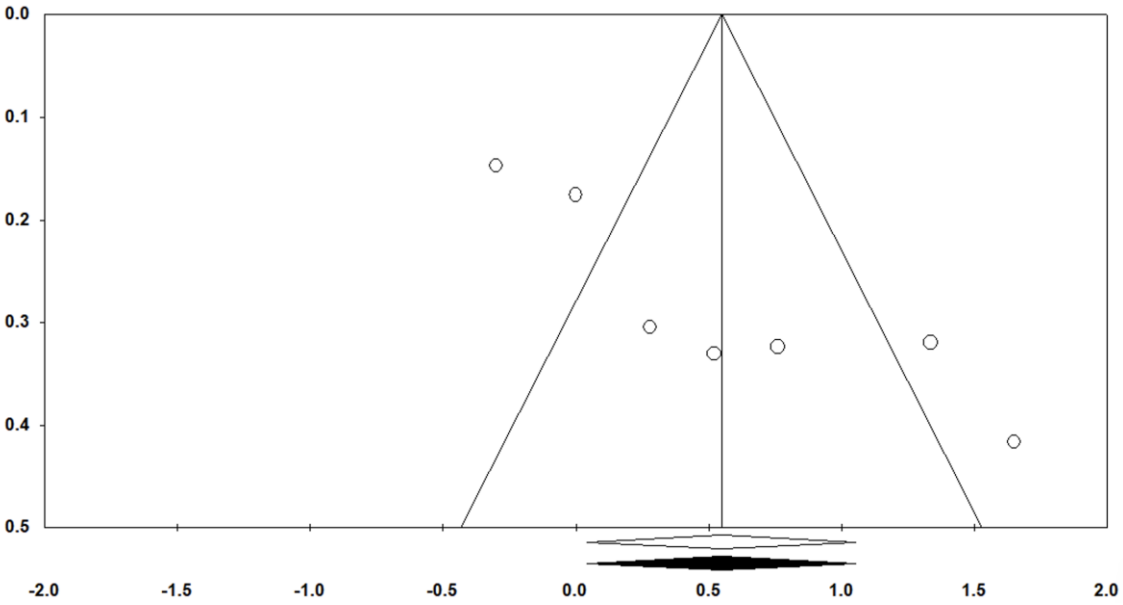
http://doi.org/10.47626/1516-4446-2022-2962
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**Figure S6** Quinolinic acid in peripheral blood: funnel plot of cross-sectional studies




There was no missing study according to the trim-and-fill method (black diamond).

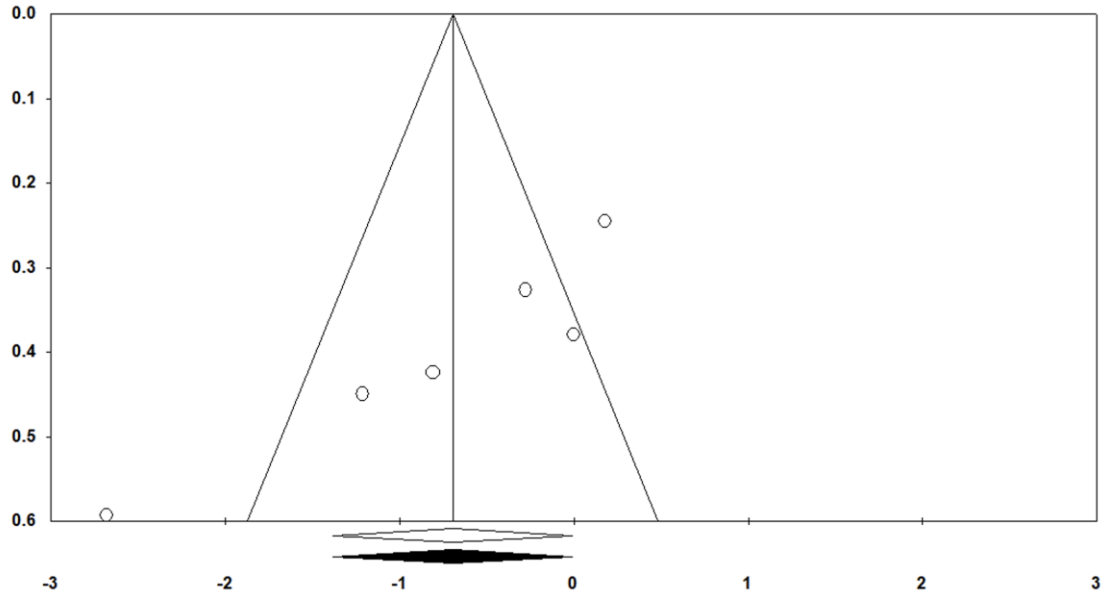
**Figure S7** Kynurenine to tryptophan ratio in peripheral blood: funnel plot of cross-sectional studies




There was no missing study according to the trim-and-fill method (black diamond).

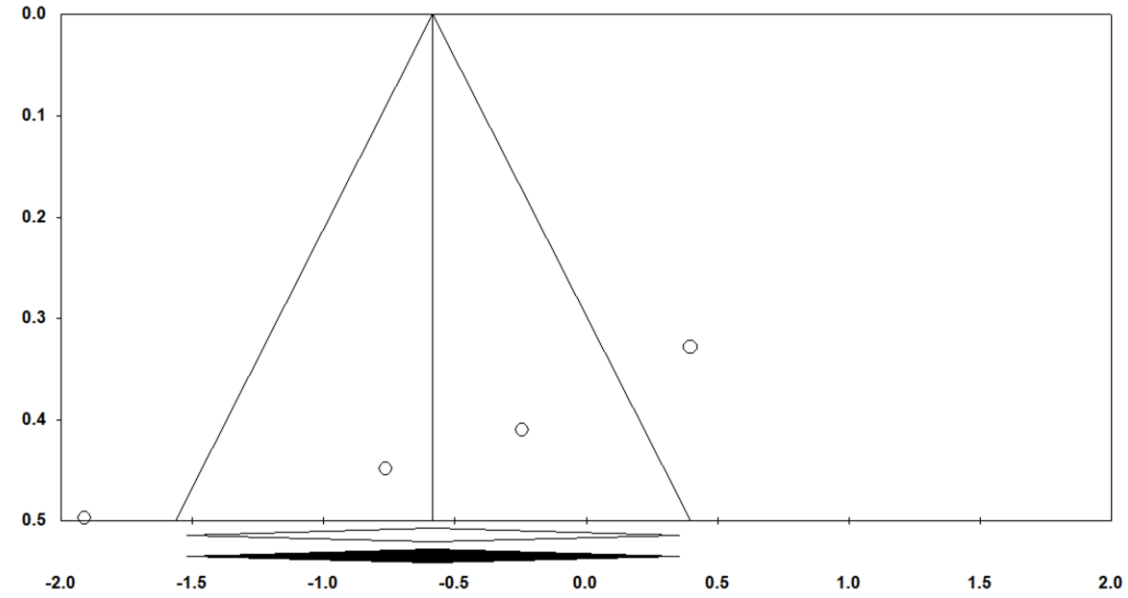
http://doi.org/10.47626/1516-4446-2022-2962
The kynurenine pathway in Alzheimer's disease: a meta-analysis of central and peripheral levels - Fernandes et al.

**Figure S8** Tryptophan in cerebrospinal fluid: funnel plot of cross-sectional studies




There was no missing study according to the trim-and-fill method (black diamond).

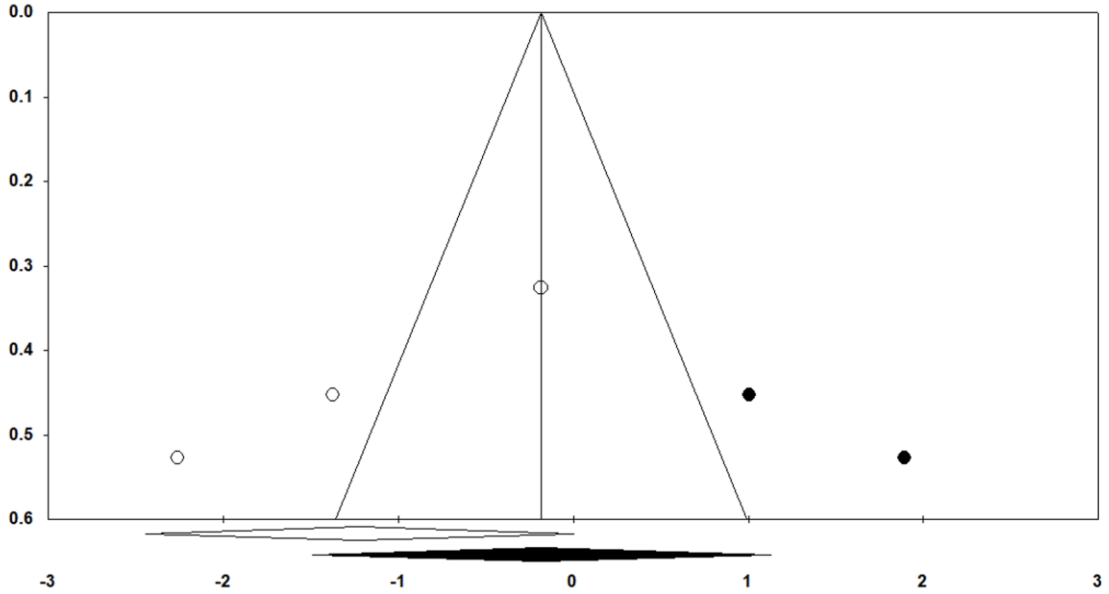
**Figure S9** Kynurenine in cerebrospinal fluid: funnel plot of cross-sectional studies




There was no missing study according to the trim-and-fill method (black diamond).

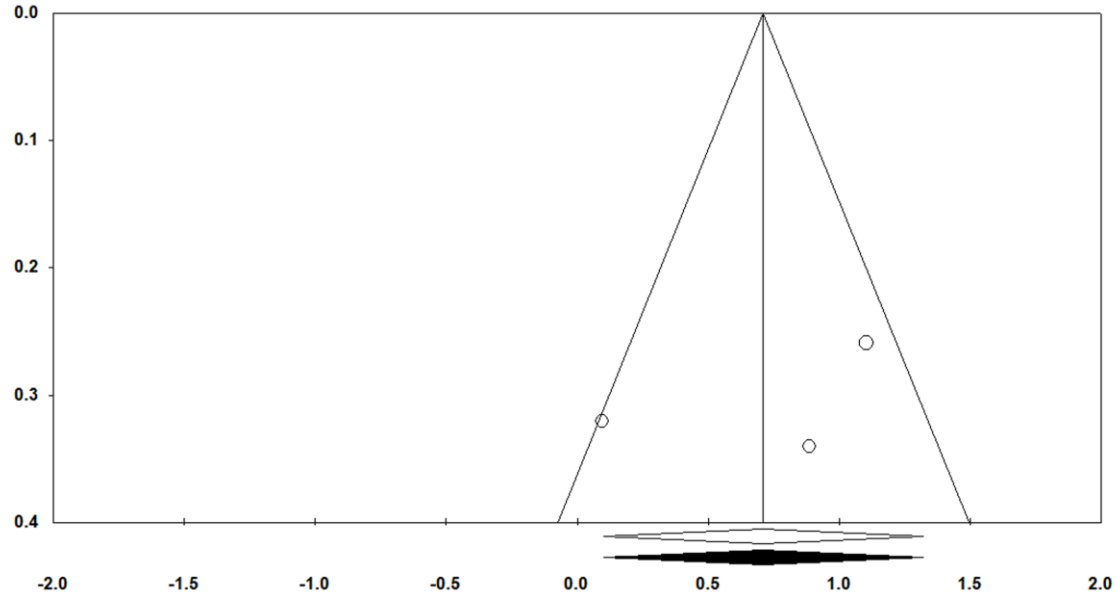
http://doi.org/10.47626/1516-4446-2022-2962
The kynurenine pathway in Alzheimer's disease: a meta-analysis of central and peripheral levels - Fernandes et al.

**Figure S10** 3-Hydroxykynurenine in cerebrospinal fluid: funnel plot of cross-sectional studies




There were two missing studies according to the trim-and-fill method (black diamond). The results were no longer significant after imputation.

**Figure S11** Kynurenic acid in cerebrospinal fluid: funnel plot of cross-sectional studies




There was no missing study according to the trim-and-fill method (black diamond).

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**Table S3** Tryptophan (TRP) in peripheral blood: leave-one-out sensitivity analysis

| L1O Peripheral Blood TRP | | | | | | |
|---|---|---|---|---|---|---|
| **Study** | **SMD** | **pval** | **CI 2.5%** | **CI 97.5%** | **Qp** | **I2** |
| Basun et al. 1990 | -0.83 | 6.0e-07 | -1.2 | -0.50 | 1.9e-13 | 81 |
| Bonaccorso et al. 1998 | -0.82 | 6.4e-07 | -1.1 | -0.50 | 1.9e-13 | 81 |
| Fekkes et al. 1998 | -0.77 | 1.1e-06 | -1.1 | -0.46 | 1.0e-12 | 80 |
| Forssell et al. 1989 | -0.78 | 9.4e-07 | -1.1 | -0.47 | 6.2e-13 | 80 |
| Giil et al. 2017 | -0.84 | 4.1e-07 | -1.2 | -0.52 | 9.1e-13 | 79 |
| González-Sánchez et al. 2020 | -0.86 | 1.4e-07 | -1.2 | -0.54 | 8.6e-13 | 80 |
| Greilberger et al. 2010 | -0.77 | 1.1e-06 | -1.1 | -0.46 | 1.1e-12 | 80 |
| Gulaj et al. 2010 | -0.79 | 1.5e-06 | -1.1 | -0.47 | 4.0e-13 | 81 |
| Jacobs et al. 2019 | -0.86 | 1.2e-07 | -1.2 | -0.54 | 8.1e-13 | 80 |
| Klatt et al. 2021 | -0.82 | 9.5e-07 | -1.2 | -0.49 | 1.9e-13 | 80 |
| Martinez et al. 1993 | -0.86 | 7.3e-08 | -1.2 | -0.55 | 9.2e-13 | 80 |
| Oxenkrug et al. 2017 | -0.85 | 1.8e-07 | -1.2 | -0.53 | 6.1e-13 | 80 |
| Schwarz et al. 2013 | -0.81 | 1.0e-06 | -1.1 | -0.49 | 1.9e-13 | 81 |
| Shao et al. 2020 | -0.68 | 4.7e-09 | -0.9 | -0.45 | 6.6e-03 | 55 |
| Whiley et al. 2021 | -0.86 | 1.8e-07 | -1.2 | -0.54 | 4.1e-11 | 77 |
| Widner et al. 2000 | -0.83 | 4.8e-07 | -1.2 | -0.51 | 2.4e-13 | 81 |

**Table S4** Kynurenine (**KYN)** in peripheral blood: leave-one-out sensitivity analysis

| L1O Peripheral Blood KYN | | | | | | |
|---|---|---|---|---|---|---|
| **Study** | **SMD** | **pval** | **CI 2.5%** | **CI 97.5%** | **Qp** | **I2** |
| Giil et al. 2017 | 0.0908 | 0.58 | -0.23 | 0.41 | 3.8e-05 | 70 |
| Greilberger et al. 2010 | -0.0020 | 0.99 | -0.32 | 0.32 | 4.1e-05 | 74 |
| Gulaj et al. 2010 | -0.0321 | 0.84 | -0.34 | 0.27 | 2.3e-04 | 71 |
| Hartai et al. 2007 | -0.0327 | 0.84 | -0.34 | 0.28 | 3.3e-04 | 71 |
| Jacobs et al. 2019 | 0.0238 | 0.89 | -0.31 | 0.35 | 2.0e-05 | 75 |
| Klatt et al. 2021 | 0.0861 | 0.60 | -0.24 | 0.41 | 2.6e-05 | 72 |
| Oxenkrug et al. 2017 | 0.0367 | 0.83 | -0.30 | 0.37 | 1.6e-05 | 76 |
| Schwarz et al. 2013 | 0.0062 | 0.97 | -0.32 | 0.33 | 3.5e-05 | 75 |
| Whiley et al. 2021 | 0.1216 | 0.39 | -0.16 | 0.40 | 1.1e-02 | 58 |
| Widner et al. 2000 | 0.0067 | 0.97 | -0.32 | 0.33 | 3.5e-05 | 75 |

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**Table S5** 3-Hydroxykynurenine (3-HK) in peripheral blood: leave-one-out sensitivity analysis

| L1O Peripheral Blood 3-HK | | | | | | |
|---|---|---|---|---|---|---|
| **Study** | **SMD** | **pval** | **CI 2.5%** | **CI 97.5%** | **Qp** | **I2** |
| Giil et al. 2017 | 0.1848 | 0.57 | -0.46 | 0.83 | 1.0e-07 | 90 |
| Gulaj et al. 2010 | 0.1125 | 0.75 | -0.58 | 0.80 | 6.6e-09 | 93 |
| Jacobs et al. 2019 | -0.0017 | 1.00 | -0.67 | 0.67 | 7.6e-08 | 93 |
| Klatt et al. 2021 | 0.1664 | 0.62 | -0.49 | 0.83 | 1.7e-08 | 91 |
| Oxenkrug et al. 2017 | -0.0234 | 0.94 | -0.68 | 0.64 | 2.9e-07 | 92 |
| Schwarz et al. 2013 | -0.1985 | 0.35 | -0.61 | 0.21 | 1.1e-03 | 80 |
| Whiley et al. 2021 | 0.1661 | 0.62 | -0.50 | 0.83 | 5.3e-08 | 90 |

**Table S6** Kynurenic acid (KA) in peripheral blood: leave-one-out sensitivity analysis

| L1O Peripheral Blood KA | | | | | | |
|---|---|---|---|---|---|---|
| **Study** | **SMD** | **pval** | **CI 2.5%** | **CI 97.5%** | **Qp** | **I2** |
| Giil et al. 2017 | -0.32 | 0.0227 | -0.60 | -0.045 | 0.075 | 49 |
| González-Sánchez et al. 2020 | -0.40 | 0.0013 | -0.64 | -0.157 | 0.098 | 43 |
| Gulaj et al. 2010 | -0.28 | 0.0070 | -0.49 | -0.078 | 0.249 | 25 |
| Hartai et al. 2007 | -0.30 | 0.0122 | -0.53 | -0.065 | 0.131 | 37 |
| Jacobs et al. 2019 | -0.35 | 0.0095 | -0.61 | -0.085 | 0.051 | 53 |
| Oxenkrug et al. 2017 | -0.38 | 0.0035 | -0.64 | -0.126 | 0.064 | 49 |
| Schwarz et al. 2013 | -0.39 | 0.0026 | -0.64 | -0.135 | 0.071 | 48 |
| Whiley et al. 2021 | -0.40 | 0.0033 | -0.67 | -0.135 | 0.114 | 41 |

**Table S7** Quinolinic acid (QA) in peripheral blood: leave-one-out sensitivity analysis

| L1O Peripheral Blood QA | | | | | | |
|---|---|---|---|---|---|---|
| **Study** | **SMD** | **pval** | **CI 2.5%** | **CI 97.5%** | **Qp** | **I2** |
| Giil et al. 2017 | 0.078 | 8.3e-01 | -0.62 | 0.78 | 4.6e-05 | 86.1657 |
| Gulaj et al. 2010 | -0.403 | 7.7e-05 | -0.60 | -0.20 | 3.4e-01 | 0.0072 |
| Jacobs et al. 2019 | -0.068 | 8.5e-01 | -0.78 | 0.65 | 5.0e-05 | 90.9014 |
| Schwarz et al. 2013 | 0.030 | 9.3e-01 | -0.68 | 0.74 | 2.4e-05 | 90.7471 |
| Whiley et al. 2021 | 0.102 | 7.7e-01 | -0.57 | 0.78 | 2.8e-04 | 83.9394 |

**Table S8** Kynurenine (KYN) to tryptophan (TRP) ratio in peripheral blood: leave-one-out sensitivity analysis

| L1O Peripheral Blood KYN/TRP Ratio | | | | | | |
|---|---|---|---|---|---|---|
| **Study** | **SMD** | **pval** | **CI 2.5%** | **CI 97.5%** | **Qp** | **I2** |
| Giil et al. 2017 | 0.64 | 0.0270 | 0.0733 | 1.21 | 2.5e-07 | 84 |
| Greilberger et al. 2010 | 0.38 | 0.1137 | -0.0902 | 0.84 | 3.5e-05 | 83 |
| Gulaj et al. 2010 | 0.40 | 0.1194 | -0.1041 | 0.91 | 6.1e-05 | 84 |
| Jacobs et al. 2019 | 0.55 | 0.0696 | -0.0442 | 1.15 | 2.0e-07 | 89 |
| Oxenkrug et al. 2017 | 0.59 | 0.0511 | -0.0028 | 1.18 | 1.3e-07 | 88 |
| Whiley et al. 2021 | 0.69 | 0.0058 | 0.1997 | 1.18 | 3.5e-04 | 77 |
| Widner et al. 2000 | 0.51 | 0.0882 | -0.0766 | 1.10 | 5.4e-07 | 88 |

http://doi.org/10.47626/1516-4446-2022-2962
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**Table S9** Tryptophan (TRP) in cerebrospinal fluid (CSF): leave-one-out sensitivity analysis

| L1O CSF TRP | | | | | | |
|---|---|---|---|---|---|---|
| **Study** | **SMD** | **pval** | **CI 2.5%** | **CI 97.5%** | **Qp** | **I2** |
| González-Sánchez et al. 2020 | -0.86 | 0.049 | -1.7 | -0.0046 | 1.2e-03 | 82 |
| Jacobs et al. 2019 | -0.77 | 0.111 | -1.7 | 0.1778 | 4.4e-05 | 87 |
| Martinez et al. 1993 | -0.84 | 0.060 | -1.7 | 0.0358 | 1.1e-04 | 86 |
| Toghi et al. 1992 | -0.66 | 0.171 | -1.6 | 0.2868 | 7.3e-05 | 88 |
| Toghi et al. 1995 | -0.58 | 0.209 | -1.5 | 0.3262 | 2.4e-04 | 88 |
| Wada et al. 1993 | -0.31 | 0.213 | -0.8 | 0.1782 | 4.4e-02 | 60 |

**Table S10** Kynurenine (KYN) in cerebrospinal fluid (CSF): leave-one-out sensitivity analysis

| L1O CSF KYN | | | | | | |
|---|---|---|---|---|---|---|
| **Study** | **SMD** | **pval** | **CI 2.5%** | **CI 97.5%** | **Qp** | **I2** |
| Jacobs et al. 2019 | -0.91 | 0.052 | -1.82 | 0.0085 | 0.04117 | 69 |
| Toghi et al. 1992 | -0.69 | 0.288 | -1.96 | 0.5818 | 0.00057 | 86 |
| Toghi et al. 1995 | -0.14 | 0.674 | -0.79 | 0.5112 | 0.11555 | 53 |
| Wada et al. 1993 | -0.52 | 0.422 | -1.81 | 0.7568 | 0.00080 | 87 |

**Table S11** 3-Hydroxykynurenine (3HK) in cerebrospinal fluid (CSF): leave-one-out sensitivity analysis

| L1O CSF 3HK | | | | | | |
|---|---|---|---|---|---|---|
| **Study** | **SMD** | **pval** | **CI 2.5%** | **CI 97.5%** | **Qp** | **I2** |
| Jacobs et al. 2019 | -1.71 | 5.8e-05 | -2.5 | -0.88 | 0.2131 | 36 |
| Toghi et al. 1992 | -1.14 | 2.5e-01 | -3.1 | 0.82 | 0.0011 | 91 |
| Toghi et al. 1995 | -0.71 | 2.1e-01 | -1.8 | 0.41 | 0.0387 | 77 |

**Table S12** Kynurenic acid (KA) in cerebrospinal fluid (CSF): leave-one-out sensitivity analysis

| L1O CSF KA | | | | | | |
|---|---|---|---|---|---|---|
| **Study** | **SMD** | **pval** | **CI 2.5%** | **CI 97.5%** | **Qp** | **I2** |
| González-Sánchez et al. 2020 | 0.47 | 2.2e-01 | -0.29 | 1.2 | 0.097 | 64 |
| Jacobs et al. 2019 | 0.61 | 2.2e-01 | -0.37 | 1.6 | 0.015 | 83 |
| Wennström et al. 2014 | 1.01 | 9.1e-07 | 0.61 | 1.4 | 0.596 | 0 |

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