Supplementary Content

Appendix 1: Search strategy used in the current systematic review and meta-analysis.

Appendix 2: Quality assessment of the included observational articles.

This supplementary material has been provided by the authors to give readers additional information.
Appendix 1: Search strategy used in the current systematic review and meta-analysis.

For PubMed

#1: “Amyotrophic Lateral Sclerosis”[Mesh] OR "ALS" OR "Motor Neuron Disease" OR "Lou Gehrig Disease"

#2: "Tomography, Optical Coherence"[Mesh] OR "OCT"

#3: "Retinal Nerve Fiber Layer" OR "RNFL" OR "Macular thinning" OR "Retinal vessel" OR "Retina" OR "Wall Thickness"

#4: #2 AND #3

#5: #1 AND #4

Filters: human subjects, English, Time frame from 2010 to 2021

Final search strategy after filters:

(("Amyotrophic Lateral Sclerosis"[MeSH Terms] OR "ALS"[All Fields] OR "Motor Neuron Disease"[All Fields] OR "Lou Gehrig Disease"[All Fields]) AND ("tomography, optical coherence"[MeSH Terms] OR "OCT"[All Fields]) AND ("Retinal Nerve Fiber Layer"[All Fields] OR "RNFL"[All Fields] OR "Macular thinning"[All Fields] OR "Retinal vessel"[All Fields] OR "Retina"[All Fields] OR "Wall Thickness"[All Fields]) AND ("humans"[MeSH Terms] AND "english"[Language])) AND (humans[Filter]) AND (english[Filter]) AND (2010:2021[pdat]))

Total studies: 18
Embase

Search strategy:

#18. #14 AND #15 AND #16 AND [humans]/lim AND [2010-2021]/py AND [english]/lim
#17. #14 AND #15 AND #16
#16. #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13
#15. #5 OR #6
#14. #1 OR #2 OR #3 OR #4
#13. 'retinal ganglion cell layer'/exp
#12. retina
#11. 'retinal vessels'
#10. 'macular thinning'
#9. 'rnfl'
#8. 'retinal nerve fiber layer'/exp
#7. 'retinal nerve fiber layer thickness'/exp
#6. oct
#5. 'optical coherence tomography'/exp
#4. 'lou gehrig disease'
#3. 'amyotrophic lateral sclerosis'/exp
#2. 'motor neuron disease'/exp
#1. als

Final search strategy:

(‘Als’ OR ‘motor neuron disease'/exp OR ‘amyotrophic lateral sclerosis'/exp OR ‘lou gehrig disease’) AND (‘optical coherence tomography'/exp OR ‘oct’) AND (‘retinal nerve fiber layer thickness'/exp OR ‘retinal nerve fiber layer'/exp OR ‘rnfl’ OR ‘macular thinning’ OR ‘retinal vessels’ OR ‘retina’ OR ‘retinal ganglion cell layer’/exp) AND [humans]/lim AND [2010-2021]/py AND [english]/lim

Total studies=65
Appendix 2: Quality assessment of the included observational articles.

| Study Name            | Selection | Comparability | Outcome | Total Score | Included/Excluded |
|-----------------------|-----------|---------------|---------|-------------|-------------------|
| Abdelhak2018 et al.   | 3         | 2             | 2       | 7           | Included          |
| Hubers2015 et al.     | 3         | 2             | 2       | 7           | Included          |
| Koti2018 et al.       | 2         | 2             | 2       | 6           | Included          |
| Liu2017 et al.        | 3         | 2             | 2       | 7           | Included          |
| Mukherjee2017 et al.  | 3         | 2             | 3       | 8           | Included          |
| Reingelstein2014 et al.| 3         | 2             | 2       | 7           | Included          |
| Rohani2018 et al.     | 3         | 2             | 2       | 7           | Included          |
| Rojas2019 et al.      | 4         | 2             | 2       | 8           | Included          |
| Roth2013 et al.       | 3         | 2             | 2       | 7           | Included          |
| Simonett2016 et al.   | 2         | 2             | 3       | 7           | Included          |
| Vlad Marin2019 et al. | 4         | 2             | 2       | 8           | Included          |

Note: Mean scores greater or equal to 5 are included in analysis.