

Title

Neuropathology of dementia in patients with Parkinson's disease: A systematic review of autopsy studies.

Authors

Callum R. Smith, Naveed M. Malek, Katherine A. Grosset, Breda Cullen, Steve M. Gentleman, and Donald G. Grosset.

Supplementary table: Risk of bias assessments

Author (year)	Selection	Detection	Reporting	Overall risk
Aarsland et al. (2005)	Low	Low	Low	Low
Apaydin et al. (2002)	Low	Low	Low	Low
Ballard et al. (2006)	Low	Low	Low	Low
Bancher et al. (1993)	Low	Unclear	Low	Low
Braak & Braak (1990)	Unclear	Unclear	Low	Unclear
Braak et al. (2005)	Low	Low	Low	Low
Churchyard and Lees (1997)	Low	Low	Low	Low
Colosimo et al. (2003)	Low	Unclear	Low	Low
Compta et al. (2011)	Low	Low	Low	Low
de la Monte et al. (1989)	Low	Unclear	Low	Low
de Vos et al. (1995)	Unclear	Unclear	Low	Low
Fujishiro et al. (2010)	Low	Low	Low	Low
Gaspar and Gray (1984)	Unclear	Low	Low	Low
Halliday et al. (2011)	Low	Low	Low	Low
Harding and Halliday (2001)	Low	Unclear	Low	Low
Horvath et al. (2013)	Low	Unclear	Low	Low
Howlett et al. (2015)	Unclear	Low	Low	Low
Hughes et al. (1993)	Low	Unclear	Low	Low
Hurtig et al. (2000)	Low	Low	Low	Low
Irwin et al. (2012)	Low	Low	Low	Low
Jellinger and Attems (2006)	Low	Unclear	Low	Low
Jellinger and Attems (2008)	Low	Low	Low	Low
Jellinger et al. (1991)	Low	Unclear	Low	Low
Jellinger et al. (2002)	Low	Unclear	Low	Low
Jendroska et al. (1996)	Low	Unclear	Low	Low
Kalaitzakis et al. (2009)	Unclear	Low	Low	Low
Kalaitzakis et al. (2011)	Low	Low	Low	Low
Kempster et al. (2010)	Low	Unclear	Low	Low
Kotzbauer et al. (2012)	Low	Unclear	Low	Low
Kövari et al. (2003)	Low	Low	Low	Low
Libow et al. (2009)	High	Unclear	High	High
Mattila et al. (2000)	Unclear	Unclear	Low	Unclear
Mattila et al. (1999)	Unclear	Unclear	Low	Unclear
Mattila et al. (1998)	Unclear	Unclear	Low	Unclear
Nakashima-Yasuda et al. (2007)	High	Low	Low	Unclear
Perry et al. (1985)	Unclear	Unclear	Low	Unclear
Ruffmann et al. (2016)	Low	Unclear	Low	Low
Sabbagh et al. (2009)	Unclear	Unclear	Low	Unclear
Sierra et al. (2016)	Low	Low	Low	Low
Tsuboi et al. (2007)	Unclear	Unclear	Low	Unclear
Vermersch et al. (1993)	Unclear	Unclear	Low	Unclear
Walker et al. (2015)	Low	Low	Low	Low
Whitehouse et al. (1983)	Unclear	Low	Low	Low
Wills et al. (2010)	Low	Low	Low	Low

■ Low ■ Unclear ■ High

Supplementary material: Systematic review search strategies

The following search strategies were used to identify relevant articles for the systematic review.

Medline / Embase

1. Parkinson disease/pa [Pathology]
2. Dement*.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kw, fx, nm, kf, px, rx, an, ui, sy]
3. Cogniti*.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kw, fx, nm, kf, px, rx, an, ui, sy]
4. 2 or 3
5. 1 and 4
6. limit 5 to humans
7. remove duplicates from 6

CINAHL using advanced search

S1: (MH "Parkinson Disease/PA)

S2: "Dement*"

S3: "Cogniti*"

S4: SR OR S3

S5: S1 AND S4

Limiters – Human; Exclude MEDLINE records

LILACS

Parkinson* disease AND dement* OR cogniti*

Filters – LILACS, Humans

Cochrane Library using advanced search

- #1 MeSH descriptor: [Parkinson disease] explode all trees with qualifier(s):
[Pathology – PA]
- #2 dement*
- #3 cogniti*
- #4 #2 or #3
- #5 #1 and #4

Supplementary material: Potentially relevant articles in other languages

The following articles were excluded from the systematic review during preliminary screening because they were not fully available in English.

Dubois, B., Hauw, J. J., Ruberg, M., Serdaru, M., Javoy-Agid, F., & Agid, Y. (1985). Dementia and Parkinson's disease: biochemical and anatomo-clinical correlation. *Revue Neurologique*, *141*(3), 184-193. [French].

Iwatsubo, T. (1999). Parkinson's disease, dementia with Lewy bodies, multiple system atrophy and alpha-synuclein. *Rinsho Shinkeigaku – Clinical Neurology*, *39*(12), 1285-1286. [Japanese].

Jansen, E. N., & de Vos, R. A. (1994). Dementia in Parkinson disease: Lewy body disease or Alzheimer's disease? *Nederlands Tijdschrift voor Geneeskunde*, *138*(26), 1305-1309. [Dutch].

Kretschmar, H. A., & Neumann, M. (2000). Neuropathological diagnosis of neurodegenerative and dementia diseases. *Pathologe*, *21*(5), 364-374. [German].

Yoshimura, M. (1997). Diffuse Lewy body disease. *Rinsho Shinkeigaku – Clinical Neurology*, *37*(12), 1134-1136. [Japanese].

Yoshimura, M., Mori, H., Tomonaga, M., Yamanouchi, H., & Kuzuhara, S. (1984). Loss of neurons in the nucleus basalis of Meynert in Parkinson disease with dementia, "diffuse Lewy body disease" and senile dementia of Alzheimer type. *Nihon Ronen Igakkai Zasshi*, *21*(6), 580-587. [Japanese].