

Incidental finding

Incidental brain findings on MRI, including subclinical vascular pathologic changes, are common in the general population. The most frequent are **brain infarcts**, followed by **cerebral aneurysms** and benign primary tumors. Information on the natural course of these lesions is needed to inform clinical management ¹⁾.

see also **Incidentaloma**

Case series

2016

In a prospective population-based setting, structural brain MR imaging was performed in 5800 participants (mean age, 64.9 years; 3194 women [55.1%]). Trained reviewers recorded abnormalities, which were subsequently evaluated by neuroradiologists. The prevalence with 95% confidence interval (CI) of incidental findings was determined, and clinical management of findings that required the attention of a medical specialist was followed. Follow-up imaging in the study context provided information on the natural course of findings that were not referred. Results In 549 of 5800 participants (9.5% [95% CI: 8.7%, 10.3%]), incidental findings were found, of which meningiomas (143 of 5800; 2.5% [95% CI: 2.1%, 2.9%]) and **cerebral aneurysms** (134 of 5800; 2.3% [95% CI: 2.0%, 2.7%]) were most common. A total of 188 participants were referred to medical specialists for incidental findings (3.2% [95% CI: 2.8%, 3.7%]). Of these, 144 (76.6% [95% CI: 70.1%, 82.1%]) either underwent a wait-and-see policy or were discharged after the initial clinical visit. The majority of meningiomas and virtually all aneurysms not referred or referred but untreated remained stable in size during follow-up. Incidental findings at brain MR imaging that necessitate further diagnostic evaluation occur in over 3% of the general middle-aged and elderly population, but are mostly without direct clinical consequences ²⁾.

From 503 subjects (75.3 ± 0.9 years of age, 58 % women) who received brain MRIs on a 1.5-T scanner using a standard acquisition protocol. All scans were reviewed by an experienced neuroradiologist. Incidental findings were stratified as follows: 1, no incidental findings; 2, incidental findings without clinical significance; 3, incidental findings with clinical significance or requiring clinical follow-up. Incidental findings were identified in 77.9 % of subjects. Among 392 scans that exhibited incidental findings, 494 abnormalities were identified. The most common findings in the study were cysts (45.9 % of subjects) and ear, nose, and throat (ENT) lesions (24.8 %) followed by stroke lesions (6.6 %) and neoplasms (3.8 %). There were 472 incidental findings that lacked clinical significance (group 2), and 22 incidental findings that required follow-up evaluation (group 3). Incidental findings on brain MRIs were commonly observed in this cohort of elderly subjects, but clinical follow-up was rarely indicated ³⁾.

¹⁾

Vernooij MW, Ikram MA, Tanghe HL, Vincent AJ, Hofman A, Krestin GP, Niessen WJ, Breteler MM, van der Lugt A. Incidental findings on brain MRI in the general population. *N Engl J Med*. 2007 Nov 1;357(18):1821-8. PubMed PMID: 17978290.

²⁾

Bos D, Poels MM, Adams HH, Akoudad S, Cremers LG, Zonneveld HI, Hoogendam YY, Verhaaren BF, Verlinden VJ, Verbruggen JG, Peymani A, Hofman A, Krestin GP, Vincent AJ, Feelders RA, Koudstaal PJ, van der Lugt A, Ikram MA, Vernooij MW. Prevalence, Clinical Management, and Natural Course of Incidental Findings on Brain MR Images: The Population-based Rotterdam Scan Study. *Radiology*. 2016 Jun 23:160218. [Epub ahead of print] PubMed PMID: 27337027.

³⁾

Boutet C, Vassal F, Celle S, Schneider FC, Barthélémy JC, Laurent B, Barral FG, Roche F. Incidental findings on brain magnetic resonance imaging in the elderly: the PROOF study. *Brain Imaging Behav*. 2016 Feb 3. [Epub ahead of print] PubMed PMID: 26843003.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=incidental_finding

Last update: **2024/06/07 02:58**

