Jumpstarter

Anesthesia, Surgery, and Dementia

Access downloadable resources to jump-start your search on anesthesia in older adults and those living with dementia. Use the tools and the research articles as a basis for questions you might ask your doctor or surgical team.

While exploring this brief resource, keep in mind that delirium, which often occurs after surgery in older adults, is different from cognitive decline and dementia. In order to achieve good outcomes, it is important to know ahead of surgery whether a person has a diagnosis of dementia so it can be determined if they are at a higher risk for delirium. Older adults are more sensitive to anesthetic agents and generally require smaller doses for the same clinical effect. Drug action is usually prolonged.

Resources

2019 Updated AGS Beers Criteria for potentially inappropriate medication in older adults
Benzodiazepines should typically be avoided for persons living with dementia, but may be recommended in the U.S. for periprocedural anesthesia [occurring soon before, during, or soon after surgery]. See Table 2, page 680.

Alzheimer’s disease and surgery
Atlanta, GA: WebMD.
Covers the issues to consider when deciding about surgery, questions to ask before surgery, sedation, what to except from the surgery, after surgery, problems to watch for, pain and follow-up care.
https://www.webmd.com/alzheimers/alzheimers-surgery#1

Anesthesia for older people with dementia
Kingston, ACT, Canberra: Dementia Australia LTD.
Family members report anecdotally that the person living with dementia is not the same after anesthesia. This sheet from the Australian government describes the different types of problems that may occur. Answers these questions: can anesthesia cause dementia? - can anesthesia make it worse? - what causes post-operative cognitive problems? - does type of anesthesia make a difference?
Anesthesia facts for non-medical people: anesthesia medications
Richard Novak
The personal web site of a board certified anesthesiologist who writes about common anesthesia medications used in the U.S. today.
https://theanesthesiaconsultant.com/anesthetic-medications

Decisions about surgery
Melbourne, AU: BetterHealth Channel, Victoria State Government
A general tip sheet about making your own decisions, questions to ask the surgeon, consenting to treatment, and where to get help.

Drugs used for anesthesia
Dallas, TX: Drug.com.
A compendium of drug names ranked by “popularity” calculated from the web site, Drugs.com, not by usage in surgery. Provides a link to the drug with a description of drug, important information, side effects, and other drugs that will affect the anesthetic.
https://www.drugs.com/condition/anesthesia.html?category_id=&include_rx=true&include_otc=true&show_off_label=true&submitted=true

Geriatrics (anesthesia text)
This technical information covers changes associated with aging, heart, lungs, liver, kidneys, and blood pressure, and their implications and research related to surgery. Additionally it addresses management during surgery (perioperative), regional versus general anesthesia, pain, mental status, and recovery from anesthesia.
http://www.openanesthesia.org/geriatrics_anesthesia_text/

Optimal perioperative management of a geriatric patient: best practices/guidelines from ACS NSQIP
Chicago, IL: American College of Surgeons.
Provides all-in-one guidelines for pre-, intra-, and postoperative management of geriatric patients, transition to care following surgery, tools for developing treatment plans, and more.
Seniors and anesthesia.
Schaumburg, IL: American Society of Anesthesiologists (ASA)
Covers types of anesthesia, risks to older adults, cognition and how to reduce risks of confusion after surgery (practical tips and with the care team), and the qualifications of the anesthesiologists you should expect.

Anesthesia Research

Full-text: https://anesthesiology.pubs.asahq.org/article.aspx?articleid=2707390


Full-text: https://www.ncbi.nlm.nih.gov/pubmed/25284995

Jiang, J; Dong Y; Huang W; et al. General anesthesia exposure and risk of dementia: a meta-analysis of epidemiological studies. Oncotarget. Aug 29, 2017; vol. 8(35), pp. 59628-59637. “overall the evidence from epidemiological studies supporting a link between general anesthesia exposure and an increased dementia risk is not very strong, while an association was suggested in the studies collecting anesthesia exposure using records and those providing anesthesia exposure frequency data.”
Full-text: https://www.ncbi.nlm.nih.gov/pubmed/28938666

Full-text: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2552979/

Full-text: https://www.ncbi.nlm.nih.gov/pubmed/31057246

Full-text: https://www.ncbi.nlm.nih.gov/pubmed/27650668

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Full-text: https://www.ncbi.nlm.nih.gov/pubmed/29161395

Full-text: https://www.ncbi.nlm.nih.gov/pubmed/26967259

Full-text: https://www.ncbi.nlm.nih.gov/pubmed/23220565

1,819 participants found that exposure to anesthesia after 70 was linked to long-term changes in brain function. The authors emphasized that it is not possible to determine whether anesthesia, surgery or the underlying conditions necessitating surgery caused the decline.
Full-text: https://www.ncbi.nlm.nih.gov/pubmed/30032878

Vlisides P; Avidan M. Recent advances in preventing and managing postoperative delirium. *F1000Research*. May 1, 2019; 8
Full-text: https://www.ncbi.nlm.nih.gov/pubmed/31105934

**News**

*Is surgery right for your older loved one?*
Covers special considerations for frail, chronic conditions, current medications, and mental health status.
https://health.usnews.com/health-care/patient-advice/articles/2018-06-06/is-surgery-right-for-your-older-loved-one

*Will surgery sap your brain power?*
Science Magazine
Washington, DC: American Association for the Advancement of Science)
https://www.sciencemag.org/news/2017/05/will-surgery-sap-your-brain-power

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