

CADTH Reference List

Octreotide Long-Acting Release and Everolimus for Recurrent Meningiomas

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Key Message

We found 2 non-randomized studies describing the benefits and harms of octreotide long-acting release and everolimus in patients with recurrent meningiomas.

Research Question

What literature describes the potential clinical benefits and harms of octreotide long-acting release and everolimus in patients with recurrent meningiomas?

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, Embase, the Cochrane Database of Systematic Reviews, the International HTA Database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were meningiomas, octreotide, and everolimus. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was completed on August 17, 2022 and limited to English-language documents published since January 1, 2017. Internet links were provided, where available.

Selection Criteria and Summary Methods

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in [Table 1](#). Full texts of study publications were not reviewed. The Overall Summary of Findings was based on information available in the abstracts of selected publications.

Results

Two non-randomized studies were identified describing the potential benefits and harms of octreotide long-acting release (LAR) and everolimus in patients with recurrent meningiomas.^{1,2} No relevant health-technology assessment, systematic reviews, or randomized controlled trials were identified.

Additional references of potential interest that did not meet the inclusion criteria are provided in [Appendix 1](#).

Table 1: Selection Criteria

Criteria	Description
Population	Patients diagnosed with recurrent meningiomas
Intervention	Octreotide long-acting release and everolimus
Comparator	Other therapies (i.e., hydroxyurea, bevacizumab, sunitinib, imatinib), octreotide alone, everolimus alone, no comparator
Types of information	Description of potential clinical benefits and harms (progression-free survival, overall survival, response rate, duration of response, quality of life, safety [e.g., adverse events of \geq grade 3 and grade 4, death])
Study designs	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies

Overall Summary of Findings

Two non-randomized studies describing the potential clinical benefits and harms of octreotide LAR and everolimus in patients with recurrent meningiomas were identified.^{1,2} The CEVOREM single-arm trial evaluated the effect of octreotide LAR and everolimus on 6-month progression-free survival, overall survival, response rate, tumour growth rate, and safety.¹ The retrospective study by Cardona et al. (2019) compared the effectiveness of octreotide LAR and everolimus to sunitinib.² The outcomes investigated were overall survival, progression-free survival, and toxicities.² Detailed summaries of included non-randomized studies are provided in [Table 2](#).

Table 2: Summary of Included Non-Randomized Studies

Study citation	Study design	Population	Intervention and comparator(s)	Outcomes
Non-randomized studies				
Graillon et al. (2020) ¹	Single-arm trial	Population: Patients with recurrent and progressive meningioma ineligible for further surgery or radiotherapy N = 20	Intervention: Octreotide long-acting release and everolimus Comparator: NA	6-month PFS, OS, response rate, tumour growth rate, and safety.
Cardona et al. (2019) ²	Retrospective cohort	Population: Patients with recurrent or refractory meningiomas (mean age = 55 years) N = 31	Intervention: Octreotide Long-acting release and everolimus Comparators: Sunitinib	OS, PFS, and toxicities.

NA = not applicable; NRS = non-randomized study; OS = overall survival; PFS = progression-free survival.

References

Health Technology Assessments

No literature identified.

Systematic Reviews

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

1. Graillon T, Sanson M, Campello C, et al. Everolimus and Octreotide for Patients with Recurrent Meningioma: Results from the Phase II CEVOREM Trial. *Clin Cancer Res.* 2020;26(3):552-557. [PubMed](#)
2. Cardona AF, Ruiz-Patino A, Zatarain-Barron ZL, et al. Systemic management of malignant meningiomas: A comparative survival and molecular marker analysis between Octreotide in combination with Everolimus and Sunitinib. *PLoS One.* 2019;14(6):e0217340. [PubMed](#)

Appendix 1: References of Potential Interest

Non-Randomized Studies

Octreotide Formulation Not Specified

3. Le Van T, Graillon T, Jacob J, et al. Multimodal management of surgery- and radiation-refractory meningiomas: an analysis of the French national tumor board meeting on meningiomas cohort. *J Neurooncol.* 2021;153(1):55-64. [PubMed](#)

Review Articles

4. Graillon T, Tabouret E, Chinot O. Chemotherapy and targeted therapies for meningiomas: what is the evidence?. *Curr Opin Neurol.* 2021;34(6):857-867. [PubMed](#)