A person in a red kayak is seen from behind, paddling on a blue sea. The background features a dark, rocky cliff on the left and a sunlit coastline with green hills on the right. A large, semi-transparent green circle is centered on the image, containing white text. Several white circles of varying sizes are scattered around the green circle and in the top right corner.

# Radioterapia para pacientes con cáncer del sistema nervioso central

Alternativa segura para evitar  
retrasos en el tratamiento  
durante la crisis de COVID-19



# Radioterapia hipofraccionada en tumores y metástasis del SNC

Igual supervivencia y excelente control local. Preservación de función cognitiva frente a RT holocraneal

## Radioterapia hipofraccionada y Radiocirugía

- Tumores primarios >> tratamiento en 15 sesiones<sup>1</sup>
- Tumores metastásicos: Alternativa a la cirugía o adyuvancia postquirúrgica<sup>2,3</sup>.
  - Radiocirugía : 1 sesión de tratamiento
  - RT hipofraccionada: 3-5 sesiones
    - ✓ KPS  $\geq$  70%.
    - ✓ Expectativa de vida  $\geq$  6 meses.
    - ✓ Nº de lesiones  $\leq$  10, en algunos casos se puede considerar tratar pacientes con más de 10 lesiones si son pequeñas y el paciente tiene otras características de buen pronóstico.<sup>4</sup>
    - ✓ Volumen global que nos permita cumplir constraints de cerebro sano.
    - ✓ Ausencia de diseminación leptomeníngea.

## Literatura destacada

1. **META-ANÁLISIS (Rev. Sist. Cochrane 2020)**: Meta-análisis de 12 ensayos clínicos con 1818 pacientes con Glioblastoma, 6 ensayos incluyen pacientes > 65 años. Tratamiento con RT esquemas 60 Gy/30 fr o 40 Gy/15 fr +/- Temozolomida (TMZ). La evidencia concluye que la RT-TMZ tiene mejor supervivencia que la RT exclusiva, sin diferencias entre ambos esquemas.
2. **EORTC 22952-26001 Study (Fase III, 2011)**: N359. 4 brazos: 100 SRS + Obs vs. 99 SRS+ RTHC vs 79 Cirugía + Obs vs 81 qx + RTHC. Supervivencia similar en todos los brazos, peor control local peor en brazos Obs.
3. **Guía Americana Neurocirugía (2019)**: La RC es una alternativa válida a la cirugía en MTS cerebrales únicas y debe realizarse como tratamiento adyuvante tras resección. La RC es el tratamiento de primera línea en 2-4 MCy < 4 MC si el volumen total es < 7 cc.
4. **SRS >10 M1 (Prog Neurol Surg. 2019)**: N934 (467 con 2-9 MC y 467  $\geq$ 10) tratados con RC con similares resultados de control local y supervivencia.

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# Nuestro protocolo está basado en estudios internacionales

## Le invitamos a contactar directamente con nuestros especialistas para más información

*Ponemos a su disposición estas publicaciones si así lo requiere*

**BRAIN METASTASES GUIDELINES**

**Congress of Neurological Surgeons Systematic Review and Evidence-Based Guidelines on the Use of Stereotactic Radiosurgery in the Treatment of Adults With Metastatic Brain Tumors**

**Jerome J. Graber, MD, MPH<sup>1</sup>**  
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**Jeffrey J. Olson, MD<sup>4</sup>**

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No part of this article has been published or submitted for publication elsewhere.

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Downloaded from https://academic.oup.com/neurosurgery/

**TARGET POPULATION:** These recommendations apply to adult patients with new or recurrent solitary or multiple brain metastases from solid tumors as detailed in each section.

**QUESTION 1:** Should patients with newly diagnosed metastatic brain tumors undergo stereotactic radiosurgery (SRS) compared with other treatment modalities?

**RECOMMENDATIONS:** Level 3: SRS is recommended as an alternative to surgical resection in solitary metastases when surgical resection is likely to induce new neurological deficits, and tumor volume and location are such that the risk of surgery is low and the risk of injury to surrounding structures is low.

**QUESTION 2:** What is the risk of neurological deficits from SRS?

**RECOMMENDATION:** Level 3: SRS should be considered for some patients with brain metastases to improve focal symptoms and improve quality of life with the overall goals of the treatment.

**QUESTION 3:** What is the risk of neurological deficits from SRS?

**RECOMMENDATIONS:** Level 3: SRS should be used to decrease the risk of neurological deficits.

**QUESTION 4:** What is the risk of neurological deficits from SRS?

**RECOMMENDATION:** Level 3: SRS should be used to decrease the risk of neurological deficits.

**KEY WORDS:** Brain metastases, Cerebral metastases, Stereotactic radiosurgery, Systematic review, Evidence-based medicine, Guidelines, Neurological deficits, Quality of life, Survival, Treatment, Tumors.

Neurosurgery 01-3, 2019

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**JOURNAL OF CLINICAL ONCOLOGY** ORIGINAL REPORT

**Adjuvant Whole-Brain Radiotherapy Versus Observation After Radiosurgery or Surgical Resection of One to Three Cerebral Metastases: Results of the EORTC 22952-26001 Study**

*Martin Kocher, Riccardo Soffietti, Ufuk Abacioglu, Salvador Villà, Francois Fauchon, Brigitta G. Baumert, Laura Fariselli, Tzahala Tsuk-Shina, Rolf-Dieter Kortmann, Christian Carrie, Mohamed Ben Hassel, Mauri Kouri, Egils Valeinis, Dirk van den Berge, Sandra Collette, Laurence Collette, and Rolf-Peter Mueller*

See accompanying editorial on page 121

From the University of Cologne, Cologne University Hospital, Leipzig, Germany; Azienda Ospedaliera San Giovanni Battista, Turin; and University of Toronto, Toronto, Ontario, Canada.

**A B S T R A C T**

**Purpose**

Brain metastases are a common cause of death in cancer patients. Whole-brain radiotherapy (WBRT) is the standard of care for patients with multiple brain metastases. However, WBRT is associated with significant cognitive and functional decline. Stereotactic radiosurgery (SRS) is a more precise form of radiation therapy that targets individual brain metastases. The EORTC 22952-26001 study compared SRS with WBRT in patients with one to three brain metastases. The primary endpoint was overall survival. The secondary endpoint was quality of life. The study found that SRS was superior to WBRT in terms of overall survival and quality of life. The results of this study suggest that SRS should be considered as an alternative to WBRT in patients with one to three brain metastases.

**Methods**

Patients with one to three brain metastases who had not received prior WBRT or SRS were randomized to receive either SRS or WBRT. The primary endpoint was overall survival. The secondary endpoint was quality of life. The study found that SRS was superior to WBRT in terms of overall survival and quality of life. The results of this study suggest that SRS should be considered as an alternative to WBRT in patients with one to three brain metastases.

**Results**

The study included 199 patients who were randomized to receive either SRS or WBRT. The primary endpoint was overall survival. The secondary endpoint was quality of life. The study found that SRS was superior to WBRT in terms of overall survival and quality of life. The results of this study suggest that SRS should be considered as an alternative to WBRT in patients with one to three brain metastases.

**Conclusion**

The results of this study suggest that SRS should be considered as an alternative to WBRT in patients with one to three brain metastases. SRS is associated with improved overall survival and quality of life compared with WBRT.

**Tumor Radiosurgery**

Niranjan A, Lunsford LD, Kano H (eds): Leksell Radiosurgery. Prog Neurol Surg. Basel, Karger, 2019, vol 34, pp 110-124 (DOI: 10.1159/000493056)

**Stereotactic Radiosurgery for Patients with 10 or More Brain Metastases**

Masaaki Yamamoto<sup>a,b</sup>, Yoshinori Higuchi<sup>e</sup>, Yasunori Sato<sup>c,d</sup>, Hidetoshi Aiyama<sup>a,e</sup>, Hidetoshi Kasuya<sup>b</sup>, Bierta E. Barfod<sup>a</sup>

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**[Intervention Review]**

**Treatment of newly diagnosed glioblastoma in the elderly: a network meta-analysis**

Catherine Hanna<sup>1a</sup>, Theresa A Lawrie<sup>2b</sup>, Ewelina Rogozińska<sup>2</sup>, Ashleigh Kernohan<sup>3</sup>, Sarah Jefferies<sup>4</sup>, Helen Bulbeck<sup>5</sup>, Usama M Ali<sup>6</sup>, Tomos Robinson<sup>3</sup>, Robin Grant<sup>7</sup>

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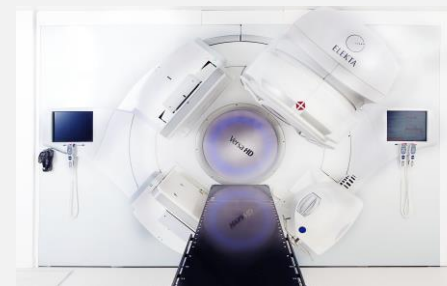
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# La red de centros de GC en el territorio nacional permite que nuestros pacientes puedan iniciar sus tratamientos en pocos días desde su prescripción

## El valor de la Radioterapia ante la crisis del COVID-19

- **Evitar demoras** en el tratamiento de un paciente oncológico que puede implicar un progreso de su enfermedad
- **Acceso rápido** en un **entorno seguro**
  - Hemos tomado las medidas necesarias para minimizar el riesgo de contagio de COVID-19 en nuestros centros.
  - Nuestros equipos trabajan con los EPIs recomendados por la comunidad científica y realizamos desinfección después de cada tratamiento
  - Aplicando protocolos internacionales de hipofraccionamiento (reduciendo la duración de muchos tratamientos hasta solo una semana minimizando la exposición de los pacientes)
  - Las consultas de seguimiento las hacemos de manera telemática para reducir el flujo de personas en nuestros centros.
  - La mayoría de nuestros centros son ambulatorios o tienen entradas separadas, reduciendo el riesgo de contagio para nuestros pacientes y personal.
- Capacidad de dar soporte y ayudar tanto en los servicios **públicos como privados**

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