

# ESMO Clinical Practice Guidelines

## **Management of carcinomatous meningitis in a patient with advanced lung adenocarcinoma**

### Clinical Case Presentation

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# DISCLOSURES

- Honoraria: Novartis, Mundipharma
- Research funding: Mundipharma, Amgen

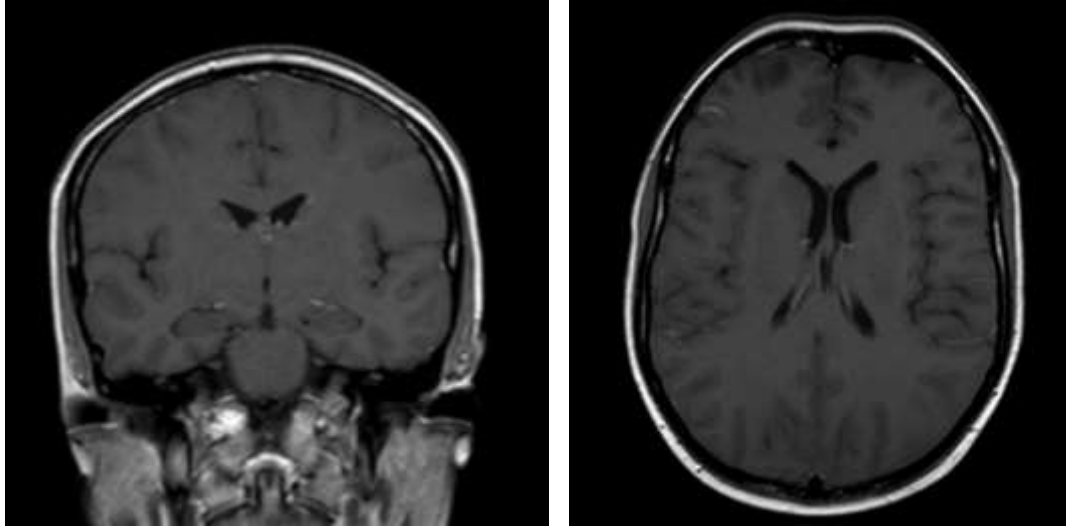
## CASE VIGNETTE

- 46 year-old male
- January 2012 : lung adenocarcinoma, EGFR non evaluable, pT2b pN1 M0
- February 2012 : lung + axillary resection followed by cisplatin- vinorelbine X 4 cycles
- August 2015 : mediastinal lymph nodes progression : local radiotherapy then carboplatin + paclitaxel
- November 2015 : repeated falls leading to a brain MRI

EGFR, epidermal growth factor receptor; MRI, magnetic resonance imaging



**A cerebral MRI is performed and is normal**



MRI, magnetic resonance imaging

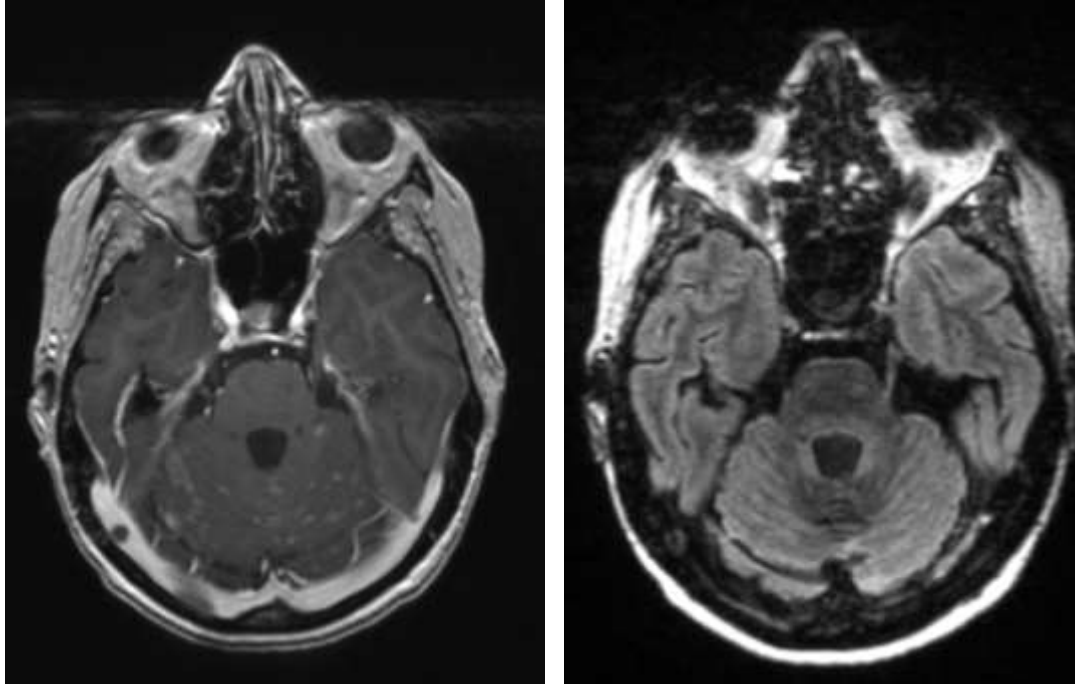
# Q1. How do you complete the evaluation?

1. Clinical follow-up only
2. Brain MRI in 2-3 months
3. Thorax/abdomen CT scan
4. PET
5. Spinal MRI
6. CSF cytology
7. CSF EGFR
8. CSF flow study

(several correct answers)



**If the MRI was this one,  
how do you complete the evaluation?**



MRI, magnetic resonance imaging

## Q2. How do you complete the evaluation?

1. Thorax/abdomen CT scan
2. PET
3. Spinal MRI
4. CSF cytology
5. CSF EGFR status
6. CSF flow study
7. No more examination

(several correct answers)



59 year-old male

2012 : lung adenocarcinoma, EGFR undetermined

2012 : lung + axillary resection followed by cisplatin/vinorelbine X4 cycles

August 2015 : mediastinal lymph nodes progression, local radiotherapy then carboplatin + paclitaxel

November 2015 : repeated falls leading to a brain MRI

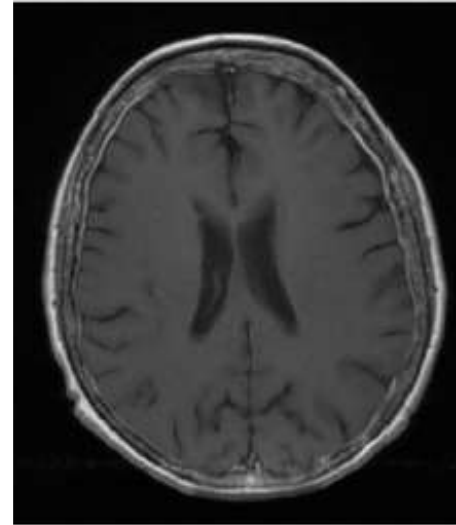
**Brain and spinal MRI with diffuse linear contrast enhancement**

**Detailed neurological evaluation with mild reduction of visual acuity, left tinnitus, mild gait disorder, mild left lower limb deficits, urinary incontinence**

**No progression of the extra-CNS disease**

**Re-assessment of EGFR: exon 19 del**

**CSF: atypical**



CSF, cerebrospinal fluid; CNS, central nervous system; EGFR, epidermal growth factor receptor; MRI, Magnetic resonance imaging

### Q3. What now?

1. Whole brain radiotherapy?
2. Systemic pharmacotherapy?
3. Intrathecal pharmacotherapy?
4. 1+2?
5. 1+3?
6. 2+3?
7. 1+2+3?
8. Best supportive care?  
(one preferred option)

59 year-old male

2012 : lung adenocarcinoma, EGFR undetermined

2012 : lung + axillary resection followed by cisplatin- vinorelbine X 4 cycles

August 2015 : mediastinal lymph nodes progression : local radiotherapy then carboplatin + paclitaxel

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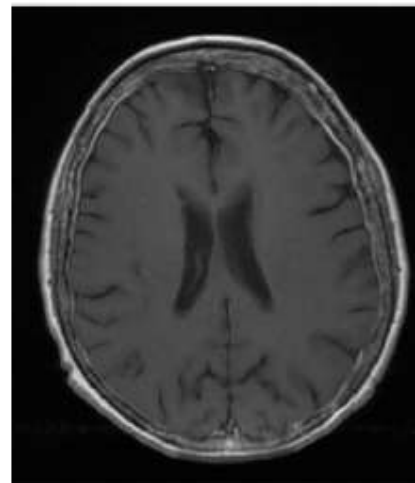
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**No progression of the extra-CNS disease**

**Re-assessment of EGFR and ALK: no mutation/no translocation**

**CSF: atypical**



ALK, anaplastic lymphoma kinase; CSF, cerebrospinal fluid; CNS, central nervous system; EGFR, epidermal growth factor receptor; MRI, Magnetic resonance imaging

## Q4. What now?

1. Whole brain radiotherapy?
2. Systemic pharmacotherapy?
3. Intrathecal pharmacotherapy?
4. 1+2?
5. 1+3?
6. 2+3?
7. 1+2+3?
8. Best supportive care?  
(one preferred option)

59 year-old male

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2012 : lung + axillary resection followed by cisplatin- vinorelbine X 4 cycles

August 2015 : mediastinal lymph nodes progression : local radiotherapy then carboplatin + paclitaxel

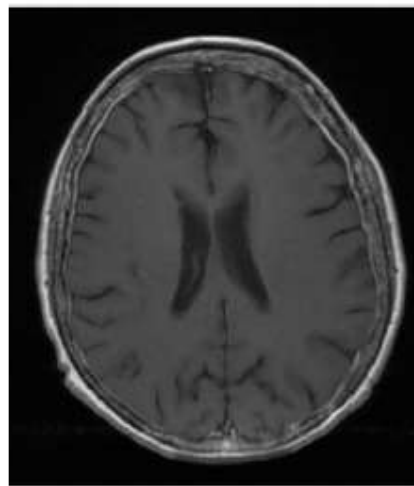
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**Brain and spinal MRI with diffuse linear contrast enhancement**

**Detailed neurological evaluation with mild reduction of visual acuity, left tinnitus, mild gait disorder, mild left lower limb deficits, urinary incontinence**

**No progression of the extra-CNS disease**

**Re-assessment of EGFR: exon 19 del**  
**CSF: positive**



ALK, anaplastic lymphoma kinase; CSF, cerebrospinal fluid; CNS, central nervous system; EGFR, epidermal growth factor receptor; MRI, Magnetic resonance imaging

## Q5. What now?

1. Whole brain radiotherapy?
2. Systemic pharmacotherapy?
3. Intrathecal pharmacotherapy?
4. 1+2?
5. 1+3?
6. 2+3?
7. 1+2+3?
8. Best supportive care?  
(one preferred option)

59 year-old male

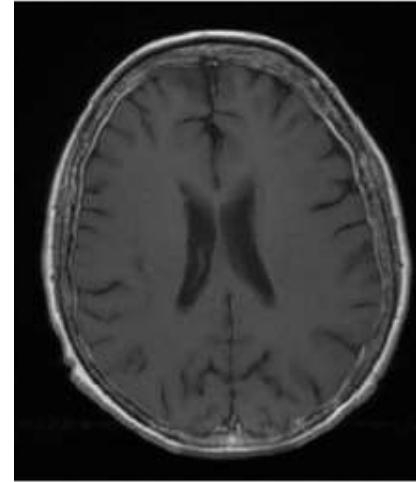
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## Q6. What now?

1. Whole brain radiotherapy?
2. Systemic pharmacotherapy?
3. Intrathecal pharmacotherapy?
4. 1+2?
5. 1+3?
6. 2+3?
7. 1+2+3?
8. Best supportive care?  
(one preferred option)

59 year-old male

2012 : lung adenocarcinoma, EGFR undetermined

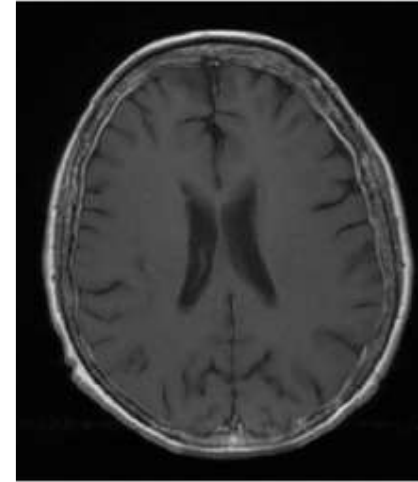
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**Brain and spinal MRI with diffuse linear contrast enhancement;**  
**detailed neurological evaluation with mild reduction of visual acuity, left tinnitus, mild gait disorder, mild left lower limb deficits, urinary incontinence**  
**No progression of the extra-CNS disease**

**Re-assessment of EGFR: exon 19 del**  
**CSF: negative**



CSF, cerebrospinal fluid; CNS, central nervous system; EGFR, epidermal growth factor receptor; MRI, Magnetic resonance imaging

# Q7.What now?

1. Whole brain radiotherapy?
2. Systemic pharmacotherapy?
3. Intrathecal pharmacotherapy?
4. 1+2?
5. 1+3?
6. 2+3?
7. 1+2+3?
8. Best supportive care?  
(one preferred option)

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2012 : lung adenocarcinoma, EGFR undetermined

2012 : lung + axillary resection followed by cisplatin- vinorelbine X 4 cycles

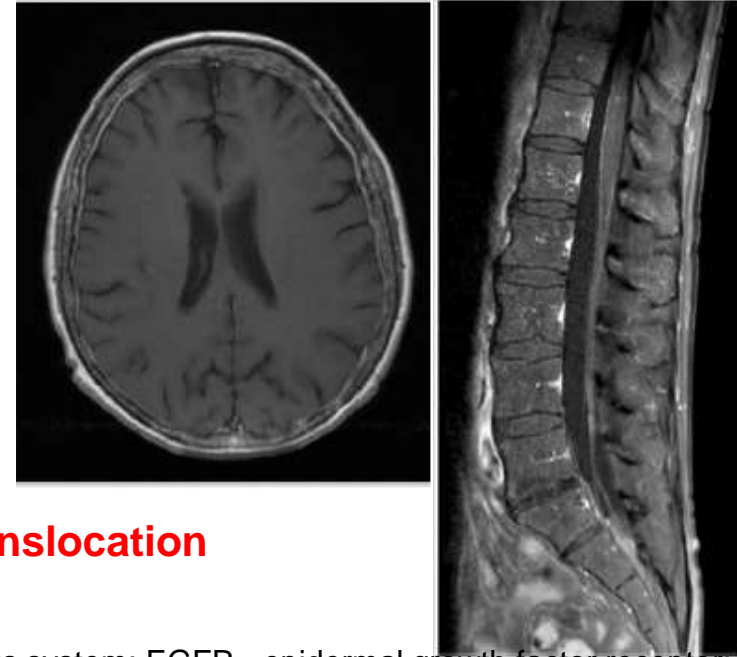
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## Q8. What now?

1. Whole brain radiotherapy?
2. Systemic pharmacotherapy?
3. Intrathecal pharmacotherapy?
4. 1+2?
5. 1+3?
6. 2+3?
7. 1+2+3?
8. Best supportive care?  
(one preferred option)