

Post-partum spinal metastases from choriocarcinoma presenting as suspected neuraxial complication

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Introduction

- Post-partum neurological symptoms are uncommon, with overall nerve injury rates between **0.008% and 1%**(1)
- The **majority are due to pregnancy and delivery**, not anaesthesia
- Neurological injury from neuraxial techniques is **rare**:
 - Temporary: ~1 in 6,700
 - Permanent: 1 in 80,000–320,000 (2)
- Despite this, neurological deficits are often **assumed to be anaesthesia until proven otherwise**
- The differential diagnosis is broad (see **Table 1**) and ranges from **benign neuropathy to life-threatening pathology**
- Early recognition of “**red flag**” **symptoms** is essential to avoid permanent disability

Case

- 28-year-old woman
- Presented **2 weeks post normal vaginal delivery with Manual removal of Placenta**
- Symptoms:
 - Lower back pain → right leg radiculopathy
 - Paraesthesia (right foot)
 - Urinary retention
- Obstetric anaesthesia:
 - Epidural (3 attempts, no paraesthesia)
 - Spinal for manual placenta removal
 - Normal 24-hour review

Examination

- Right hip/knee weakness (L4/5).
- L5/S1 sensory loss.
- Urinary retention.

Pathology	Approximate Incidence
Epidural Abscess	0.2-3.7 per 100 000 obstetric epidurals
Bacterial Meningitis	0.5-2 per 100 000 obstetric epidurals (2)
Aseptic Meningitis	Unknown
Arachnoiditis	<1 per 500 000 obstetric epidurals
Spinal Haematoma	0.2-3.7 per 100 000 obstetric epidurals
Cranial Subdural Haematoma	1 per 500 000 obstetric epidurals (3)
Anterior Spinal Artery Syndrome	1 per 500 000 obstetric epidurals (3)
Cauda Equina Syndrome	1.2 per 10 000 spinal anaesthetic (non-obstetric)
Cranial Nerve Palsy	1-3.7 per 100 000 obstetric regional anaesthetic
Trauma/Neuropathy	1.6-5.4 per 10 000 obstetric regional anaesthetic (3)

Table 1. Neurological pathology resulting from regional anaesthetic techniques and their incidence

Post-partum neurological pathway

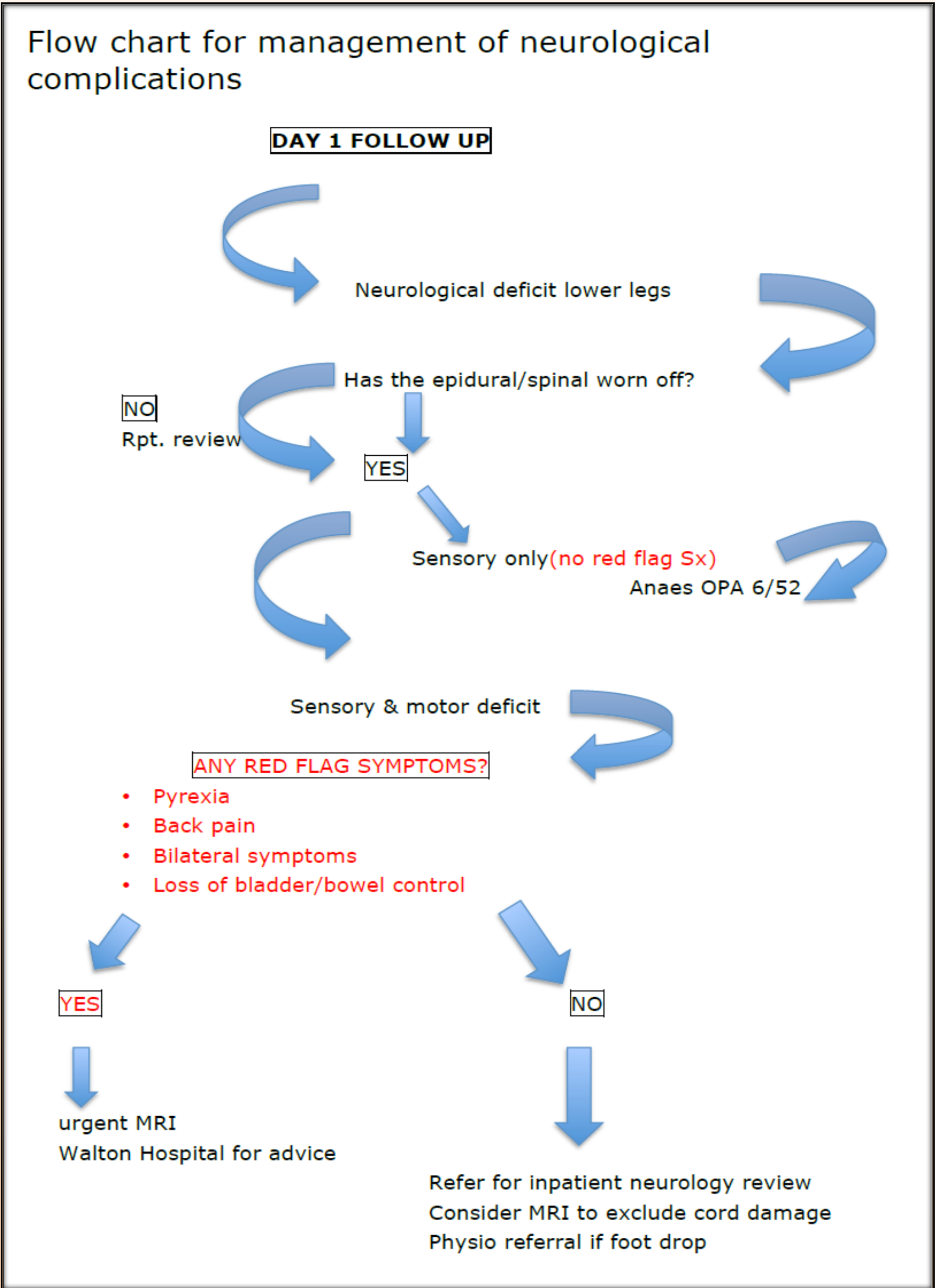


Figure 1. Local guideline for management of post-partum neurological complications.



Figure 2. Red flags symptoms

Investigations

- MRI spine:
 - L3–S1 marrow infiltration (Fig 2)
 - Sacral soft tissue lesion
- Further imaging:
 - Lung metastases (Fig 3)
 - Liver metastases
 - Brain lesion
- β -hCG: **42,157 IU/L (<1)**

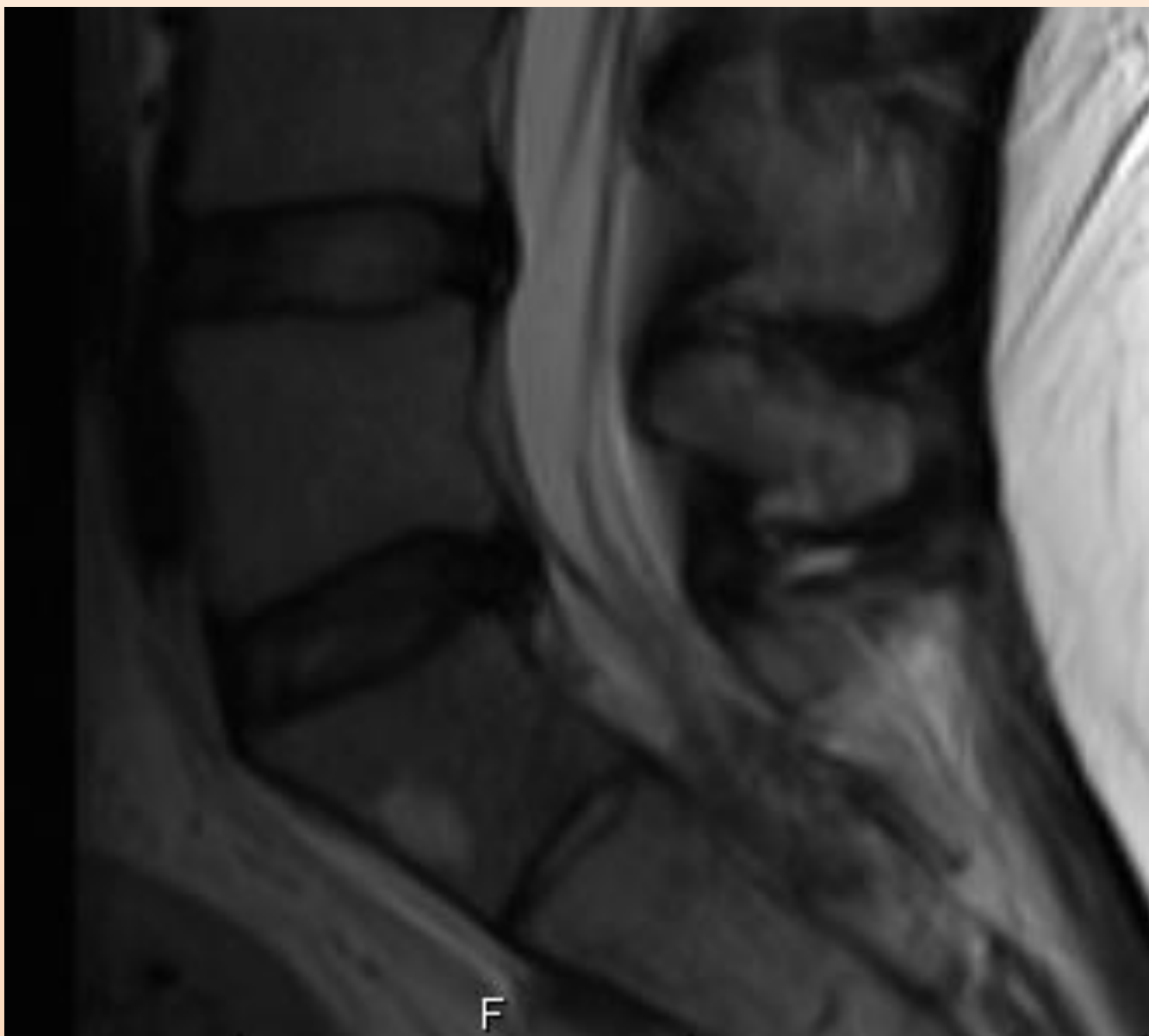


Fig 2. S1 Metastatic infiltration



Fig 3. CT Image demonstrating lung Metastasis

Diagnosis: Metastatic Choriocarcinoma

Choriocarcinoma & Gestational Trophoblastic Disease

- Rare, **highly malignant** tumour
- Arises from **placental trophoblastic epithelium**

Key feature

- Markedly **elevated β -hCG** (tumour marker)

Gestational Trophoblastic Disease (GTD) spectrum:

- Hydatidiform mole (complete / partial)
- Choriocarcinoma
- Invasive mole
- Placental site trophoblastic tumour

Incidence: <1 per million women

Behaviour: rapid haematogenous spread but **highly chemo-sensitive**

Common metastatic sites:

- Lung (94%)
- Vagina (44%)
- Liver (28%)
- Brain (28%)

Pregnancy associations:

- 50% molar pregnancy
- 25% post-abortion
- 23% normal pregnancy
- 3% ectopic pregnancy

Management

- Specialist Centre: **Weston Park Hospital (Sheffield)**: Covers North England, central and north Wales.
- Etoposide + Cisplatin
- Intrathecal Methotrexate
- Duration 6-8 weeks
- Radiotherapy

Outcome

- Neurological improvement
- β -hCG normalised
- Radiological resolution

Key Learning Points

- Not all deficits are neuraxial.
- Use pathways. These can lead to quick diagnosis and treatment.
- Check β -hCG post-partum when pathology discovered.
- Early diagnosis improves outcomes.

References

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