MIND OVER MATER: A REVIEW OF SUPPORTIVE CARE FOR PRIMARY AND SECONDARY BRAIN MALIGANCIES

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PERITUMORAL EDEMA

TREATMENT

- Corticosteroids
  - Antiedema effect due to reduction of permeability of tumor capillaries and suppression of VEGF production and increased expression of tight junction proteins
  - Dexamethasone commonly used
  - Dosing considerations:
    - Minimum effective doses should be used
    - Night-time doses should be avoided
    - Taper quickly and as tolerated by patient
    - Can do once or twice daily dosing
- Bevacizumab
  - Anti-VEGF monoclonal antibody
  - Can be used in refractory cerebral edema or as a steroid sparing agent
  - Common side effect is hypertension

SEIZURES

TREATMENT

- Prophylactic anticonvulsants are not recommended
- Start treatment after patient has a seizure
- No antiepileptic drug (AED) has been found to be superior, and choice of AED should be patient specific
- Overall recommended to choose a medication that is a non-enzyme inducer, such as –
  - Levetiracetam
  - Lacosamide
  - Lamotrigine
  - Valproic acid
- At the end of life, seizures prevalence can increase, and management can be hindered by swallowing difficulties or impaired consciousness. Some non-oral options include –
  - Buccal clonazepam
  - Intranasal midazolam

VENOUS THROMBOEMBOLISM

- Patients with CNS tumors have a higher risk of developing venous thromboembolism (VTE) compared to other types of cancer

TREATMENT

- Not recommended to start anticoagulation as primary prevention
- Start anticoagulation once diagnosis of VTE has been confirmed
- Many studies examining efficacy and safety of direct oral anticoagulants (DOACs) in patients with cancer either excluded patients with brain malignancies or those patients were underrepresented
- Due to this, guidelines recommended low molecular weight heparin (LMWH) as treatment for VTE in patients with brain malignancies
- However, new studies have been published demonstrating similar efficacy and safety of DOACs in patients with and without brain malignancies

ENDOCRINOPATHIES

- Hypothalamic-pituitary axis complications can result from –
  - Disease at presentation
  - Following surgical intervention
  - Following radiation therapy
- The time to symptoms varies, but can happen as early as one year after radiation therapy
- A 2011 systematic review showed that hypopituitarism pooled prevalence was 66%

ANTIDIURETIC HORMONE (ADH) DEFICIENCY

- Also called diabetes insipidus
- ADH causes the kidneys to release less water -> decreasing the amount of urine produced
- Treatment – desmopressin
  - Synthetic analog of antidiuretic hormone

ADRENOCORTICOTROPIC HORMONE (ACTH) DEFICIENCY

- Leads to insufficient production of cortisol
- Symptoms including fatigue, weight loss, hypotension
- Treatment – hydrocortisone
  - Give 2/3 of the dose in the morning and 1/3 of the dose in the afternoon to mimic normal physiology