PALCARE
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THE JIMMY S BILIMORIA FOUNDATION

PALLIATIVE CARE
GUIDELINES
FOR A HOME SETTING IN INDIA

HICCUPS

INTRODUCTION

Hiccup is a pathological respiratory reflex characterised by recurring involuntary spasm of the diaphragm, resulting in sudden inspiration and abrupt closure of the glottis with an associated characteristic sound.

Common causes in advanced cancer

- Gastric stasis and distension (most common cause)
- Gastro-oesophageal reflux
- Metabolic disturbances (e.g. uraemia, hypercalcaemia, hyponatremia)
- Infection
- Irritation of diaphragm or phrenic nerve
- Hepatic disease/ hepatomegaly
- Cerebral causes (e.g. tumour, metastases)
- Medications (steroids, benzodiazepines, opioids, anti-dopaminergics)

Intermittent hiccups are common and often resolve spontaneously. Treatment is only necessary when they become persistent and bothersome. Hiccups are called persistent if they last more than 48 hours, and intractable if they last more than a month. Persistent or intractable hiccups are extremely distressing.

ASSESSMENT

- Assessment must determine the underlying cause of hiccups, effectiveness of treatment and impact on quality of life for the patient and their family (***refer to the Guideline - Symptom assessment***)
- Laboratory investigations - white blood cell count, renal function, serum electrolytes, liver function tests if necessary

MANAGEMENT

Recommendation

- Treat any reversible causes
- Use non-pharmacologic measures, particularly those which have been helpful in the past

- Pharmacological management should be considered cautiously as there are no randomised controlled trials or consensus to support
- Choice of medications should be made considering the potential risks and side-effects.

Non-pharmacological measures

- **Pharyngeal stimulation** includes
  - Rapidly ingesting two heaped teaspoons of granulated sugar
  - Swallowing dry bread
  - Sipping iced water or swallowing crushed ice
  - Passing of a suction tube into the nasopharynx 8-10 cm to the level of C2, where the suction tube is rolled to and fro to stimulate the pharyngeal wall
  - Nebulisation of 0.9% saline (2mL over 5 minutes)
- **Elevation of PCo_2**
  - Holding one's breath
  - Re-breathing from a paper bag
- **Others**
  - Acupuncture

Pharmacological measures

- **Reducing Gastric distension**
  - Peppermint water 10mL q12h, as anti-flatulent
  - Antacid medications containing simethicone or dimethicone 10mL PO q8h
  - Prokinetic - Domperidone or Metoclopramide 10mg PO q8h
  - Peppermint water and prokinetics, e.g. metoclopramide, should not be used concurrently because of their opposing actions on the gastro-oesophageal sphincter
  - Treatment of acid peptic disease if suspected, with proton pump inhibitor
- **Muscle relaxants**
  - Baclofen 5-20mg PO q8h (if renal function is reasonable; avoid abrupt withdrawal)
  - Nifedipine 5-20mg PO q8h (avoid in hypotension)
- **Central suppression of hiccup reflex**
  - Haloperidol 0.5-1mg PO q8h, maintenance dose 1 to 3mg PO hsod
  - Chlorpromazine 25mg PO q6h, increasing to 50mg PO q6h if needed (avoid in hypotension)
  - Anti-convulsant - Gabapentin 300-1200 mg/24 hours PO
- **Reduction of compression/irritation - hepatic, mediastinal and cerebral tumours**
  - Trial with Dexamethasone 4-8mg PO OD (PC); stop if no benefit is evident after a week

- **If all other pharmacological interventions are unsuccessful and the patient is very distressed**
  - A trial of midazolam 10- 30mg/24hours S/C via a syringe driver can be attempted, reducing dose as patient improves
- **Reassess the benefit of medication after 3 days and stop/change the medication if necessary**

References

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