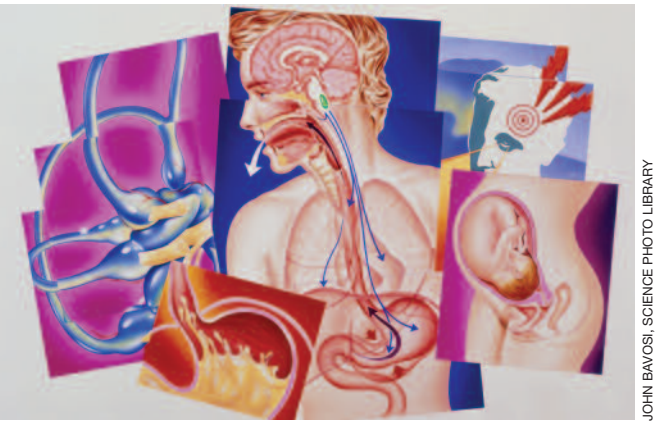
Nausea: think outside the gut

ROBERT GIBSON BMed **ANNE DUGGAN** BA(Hons), BMed, FRACP, PhD



JOHN BAVOSI, SCIENCE PHOTO LIBRARY

Although nausea is a symptom of primary gastrointestinal disease, there are many other causes. Here, these authors outline their approach to nausea.

Remember

- Nausea is a nonspecific symptom of extremely diverse aetiology.
- The chemoreceptor trigger zone in the medulla is sensitive to drugs, toxins and neurotransmitters, and the nucleus tractus solitarius, also in the medulla, is sensitive to visceral afferents. Projections from the medulla to the limbic, hypothalamic and cortical regions of the CNS allow for perception of nausea.
- This explains why nausea may be a manifestation of gastrointestinal pathology, metabolic disturbance, infection (gastrointestinal or otherwise), drug side effect, and central nervous system or psychiatric disease.
- Most cases of nausea are not due to sinister pathology. Associated symptoms such as morning headache, weight loss, early satiety and gastrointestinal bleeding should trigger urgent investigation.
- Gastro-oesophageal reflux is a common cause of unexplained nausea that is otherwise asymptomatic.
- Organic diseases rarely cause isolated chronic unremitting nausea.

Dr Gibson is Advanced Trainee in Gastroenterology, and Professor Duggan is Senior Staff Specialist Gastroenterologist and Director, Department of Gastroenterology, John Hunter Hospital, Newcastle, NSW.

Assessment

- Distinguish between acute and chronic symptoms.
- Associated symptoms and signs should guide the assessment.
- Acute nausea is usually related to infections of the gastrointestinal tract or other sites, such as the respiratory and genitourinary systems, or to medications and toxins.
- Historical clues to look for include:

– temporal association with medication or environmental and occupational exposure to chemicals and toxins, especially alcohol

– headache, especially progressive, early morning and possibly with associated neurological symptoms of weakness, speech, cognitive or visual disturbance, which raises the possibility of intracranial space occupying lesions and migraine

– vertigo, which is a feature of labyrinth dysfunction.

- The presence of other gastrointestinal symptoms suggests a primary gastrointestinal disease. These symptoms become more sinister when accompanied by weight loss or bleeding.
- In the young, always consider pregnancy (ask for a history of amenorrhoea), eating disorders, use of recreational substances and psychiatric illness.
- In the elderly, always consider drugs, constipation, depression, malignancy and gastro-oesophageal reflux disease.
- The clinical examination should include a general, abdominal and neurological review plus an assessment of hydration, nutrition and weight.
- Clinical clues should guide the investigation, which may include x-ray, ultrasound, CT, endoscopy, gastric emptying studies and, especially in acute nausea, mid-stream urine analysis.
- If symptoms are protracted or unexplained, basic biochemistry may identify a systemic cause or complicating electrolyte disturbance. The tests should include sodium, potassium, bicarbonate, calcium, glucose, renal function, liver enzymes, thyroid function tests and therapeuticdrug levels where relevant. If Addison's disease is suspected on the basis of hypotension, a cortisol or adrenocorticotropin stimulation test should be arranged.
- Consider gastric or intestinal obstruction if nausea is associated with crampy abdominal pain, distension or vomiting.

Management

- Treat or remove the underlying cause.
- Correct fluid volume and electrolyte imbalance.
- Trial a proton pump inhibitor if gastro-oesophageal reflux disease is suspected.
- Provide symptomatic relief with anti-emetics, keeping in mind the side effects of phenothiazines (extrapyramidal, sedation) and metoclopramide (extrapyramidal, sedation, confusion).
- Consider referral to a gastroenterologist if nausea is prolonged and undiagnosed. MT

DECLARATION OF INTEREST: None.