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Common Challenges in Primary Care Paediatrics

Constipation

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Queensland Government

Constipation Definition

- Constipation can be defined as the infrequent passing of a bowel motion, passing a stool less than twice a week (Houghton, Horgan, & Boldy, 2016).
- Constipation is often described as functional when no organic pathology is identified as a cause (Waterham, Kaufman, & Gibb, 2017).

- **Functional Constipation**
- Diagnosis in 95% of cases
- Contributing factors : pain, fever, diet, acute after a trigger event
- No red flags and a SNT abdominal exam

Rome IV criteria for functional constipation age 4–18 years

Two or more of the following at least once a week for a minimum of one month:

- ≤2 Stools/week
- History of painful or hard bowel movements
- History of large-diameter stools that can obstruct the toilet
- At least one episode per week of soiling after the acquisition of toileting skills
- History of retentive posturing or excessive volitional stool retention
- Presence of a large faecal mass in the rectum

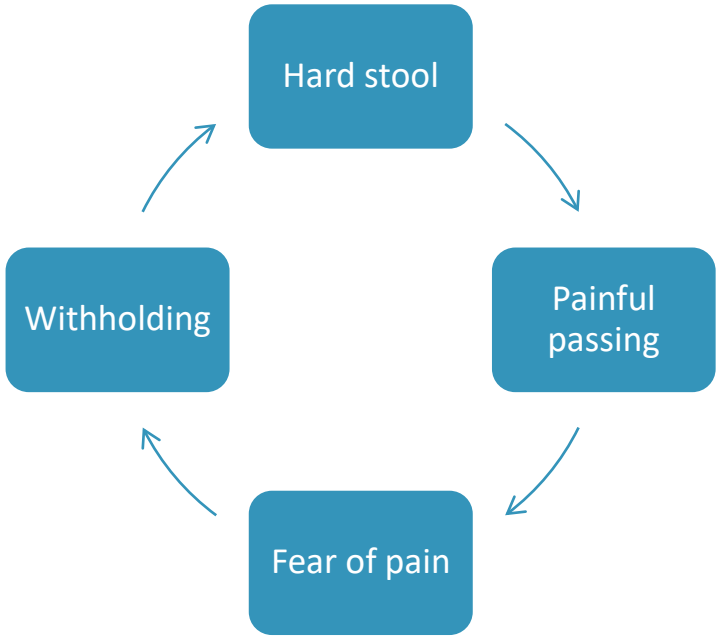
Relevance

- Physical health implications
- Emotional implications
- Education impacts
- Burden on the family

Pathophysiology

- Remains unclear
- Multi-factorial
- Cycle of constipation
- Genetic component – family history
- Slow transit
- Low number of pace maker cells in gut (interstitial cells of cajal - histology)
- Low levels of substance p and vasoactive peptide in right transverse colon

Cycle of Functional Constipation



PATHOPHYSIOLOGY

- Related to behavioural withholding after a painful or unpleasant stool event.
- Stool builds up within the colon and rectum, leading to the absorption of water and, therefore, accumulation of hard faecal matter.
- This faecal retention stretches the lower bowel and rectum.
- Over time, the sensation of ‘needing to go’ when the rectum is full diminishes with persistent rectal stretching from chronic stool loading.
- This rectal hyposensitivity can lead to involuntary soiling and will persist until chronic stretching is alleviated and prevented from recurring. Soiling can be embarrassing and distressing.

Ref; Zeevenhooven J, Koppen IJ, Benninga MA. The new Rome IV criteria for functional gastrointestinal disorders in infants and toddlers. Pediatr Gastroenterol Hepatol Nutr 2017;20(1):1–13. Search PubMed

Assessment/Diagnosis

- History
  - Neonatal History –
    - Time of passage of meconium
  - Timing of onset
  - Stool patterns
    - Frequency,
    - Bristol stool chart
    - Overflow is common
  - Behaviours associated with defecation
    - Distress
    - Bleeding
    - Straining
  - Diet and fluid intake

Assessment continued

- General Examination and Growth chart
- Abdominal exam
- Perianal exam
- Neurological exam – reflex, spine

Clinical investigations

- Coeliac and thyroid function screen
- X-rays only if idiopathic
  - Only 43% of x-rays had specificity, history taking more accurate
- Transit studies
  - Only if non responsive to treatment
- Abdominal Ultrasound +/- rectal diameter
- Rectal biopsy:
  - Delayed passage of meconium
  - Constipation since first weeks of life
  - Chronic abdominal distension and vomiting
    - Family history
    - Faltered growth with the above features

Differential Diagnosis

- Organic cause – 5% of cases
  - Hirschsprung disease
  - Anorectal malformations
  - Neuromuscular disease
  - Metabolic or endocrine disorders

- Non retentive soiling - Encopresis
  - Daily stools, normal consistency
  - Normal appetite
  - No pain
  - No palpable mass

Co-Morbidities

- Bladder dysfunction (30% of cases)
- ADHD
- ASD
- Food intolerances
- Trauma and anxiety

Treatment

- Successful treatment of constipation is referred to as the person spontaneously responding to an urge to pass a motion of adequate size and appropriate softness to clear the bowel, on a regular basis (greater than 3 times per week).
- Do not just use diet and lifestyle as a first line treatment – needs to occur with stool softeners

Washouts – Outpatient

- NICE Guidelines
- https://www.nice.org.uk/guidance/cg99/chapter/1-Guidance#clinical-management
- Large doses !!! WASHOUT NEEDED!!!

Why do they fail

- Inadequate prescribing of stool softeners – dose and duration!
- Parents have not had appropriate education
  - How much to take
  - How long to take it for
  - What they are looking for
- Children are non compliant
  - Dislike the taste
  - No provided with opportunity
  - Seen as punishment
  - Parents are not creative in finding ways to administer
- Need large doses that hard to swallow
- It is messy and parents don’t want soiling accidents

Referral to TPCH

- **CPC guidelines**
- Good history
- Good examination
- What previous management has been instituted
- Relevant social and family history

- Don’t send to Gastro - send to Gen Paeds
- Referral to Private Allied Health when behavioural component strong

TPCH Paediatric Services

- General Paediatricians
- Allied Health (short term assessment and intervention only)
  - Dietetics
  - Occupational Therapy
  - Psychology
  - Speech Pathology
  - Social Work
  - Nursing

Community Services

- Community child health clinics
- Child development services
- Allied health – private service
  - MARS
  - OT clinics:
    - Ones and Twos
    - Kids that go

Behavioural Toileting

- Timed toileting
  - Times after meals
  - Boredom, not focused on outcome, frustration
- Medication compliance
  - Taste
  - Routine
  - Element of control
- Awareness of sensory elements (both toileting and medication)
- Goals :
  - always bowel health,
  - then focus on other elements of toileting
    - Anxiety - Graded exposure
    - Sensory modifications
    - Increased awareness of body sensations

OUTCOMES

- Wider literature indicates
- 30% of patients have ongoing issues 5 years post
- 15 % have issues into adulthood

Research within Prince Charles Hospital

- 63% of cases were referred for constipation, 9% for abdominal pain, and 28% for other reasons
- 80% were of a chronic nature
- 63 % have had previous medical management of which
  - 74% didn’t have a washout – small dose only
  - 8% were washouts recommended by ED
  - 2% private paediatrician
  - 12 % washout recommended by GP
- 58% of patients were referred to allied health services (one or multiple).
- 77% treated at TPCH, have success at 12 months

Thank You

Questions?