

# ABDOMINAL PAIN IN CHILDREN

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# Case 3

- Jessica is 11 years old and complains of abdominal pain for 2 years
- Every day, doubled in pain
- Central tummy
- Repeated visits to school nurse
- Attendance 75%
- Mum is worried and asks you for advice

# Apley: Recurrent Abdominal Pain (RAP)

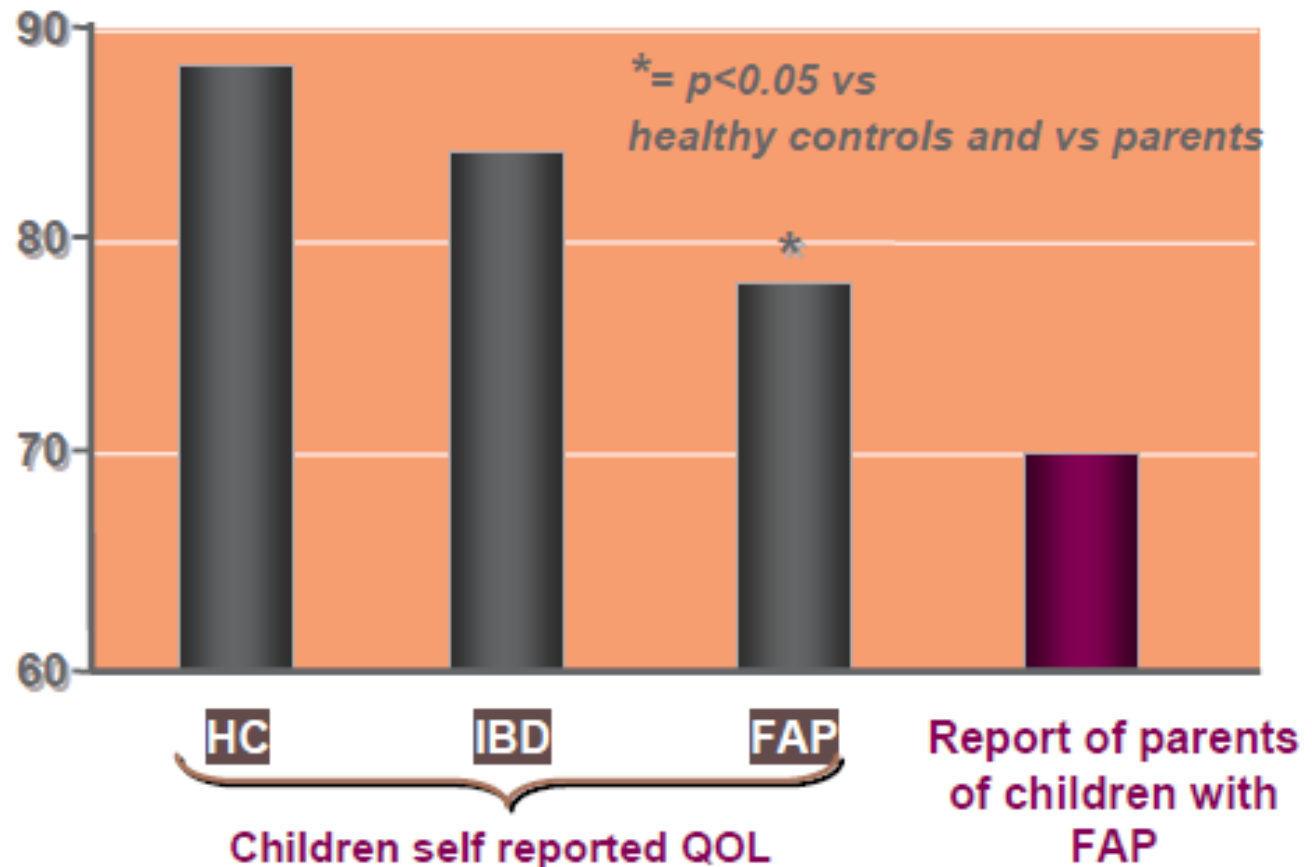
- 3 or more episodes occurring in 3 months
- Severe enough to affect routine activity and daily function
- Absence of organic pain
- Peak incidence 5-8 years
- Prevalence 7-10%

# Rome Criteria for Abdominal Pain

## 5 categories based on adult criteria:

1. Functional dyspepsia – pain above umbilicus
2. Irritable bowel syndrome – improved with stooling
3. Functional abdominal pain – doesn't fit other categories
4. Functional abdominal pain (FAP) syndrome – some loss of daily functioning and somatic complaints (ie. headache, limb pain)
5. Abdominal migraine – severe periumbilical pain and headache, photophobia, vomiting or nausea

## Lower QOL in Children with Functional Abdominal Pain



Youssef NN, et al. *Pediatrics* 2006; 117:54

# Recurrent Abdominal Pain

## Epidemiology

- 10-15% of school age children seek help
- 10-15% more have symptoms but never seek medical attention
- 10% have an organic cause
- Females > males
- Higher in > 10 years old
- Prevalence increases during school, not vacations

# MYTHS

## NOT associated with:

- Super-intellect
- Perfectionist
- Over-achiever
- Constant worrier

# Mother / Child's Agenda

She loves school  
and has many  
friends

I hope he  
finds  
something

I hope it is  
not cancer

I want some  
tests!

It is not in  
her head!

I hope he  
doesn't find  
anything

No tests  
please !

I do not know  
why I'm here





## Doctor's Incorrect Agenda



## Doctor's Correct Agenda



# Medical appointment

- Emphasize the pain is real but the cause may be hard to find
- Any pain in her sleep?
- Lots of nerves in abdomen, abdominal pain can be like headaches
- Food diary might help – NO TESTS
- Consider Celiac Disease (wheat intolerance)
- Look for red flags

# “EASY” 8 Questions

## To Separate Functional from Organic

1. When did it start? Document duration
  - F – Concurrent stressful event in life
  - O – Trauma or travel
2. Where is it located and where does it go?
  - F – Peri-umbilical or epigastric
  - O – Well localized away from umbilicus

# “EASY” 8 Questions

## To Separate Functional from Organic

3. How long does it last?

F – Prolonged duration with no clear signs

O – Variable; signs raise the ante

4. What does the pain feel like?

F – Vague, gradual onset, variable severity

O – Isolated, sudden onset

# “EASY” 8 Questions

## To Separate Functional from Organic

5. What makes the pain better?
  - F – No relationship to interventions
  - O – Sometimes medications or position change help
6. What makes the pain worse?
  - F – Off school = Reinforcement from parents
7. Is the pain intermittent or constant
  - F – Constant
  - O - Intermittent

# “EASY” 8 Questions

## To Separate Functional from Organic

### 8. Association with other signs or symptoms?

F – Signs of anxiety (mottled skin, nail biting), family history of irritable bowel, migraines

O – Association with hematachezia, fever, rash, weight loss, growth faltering, family history of ulcers or IBD



Involuntary weight loss

Growth retardation

Severe vomiting/ diarrhea

Gastrointestinal blood loss

Unexplained fever

Family history of IBD

Eye problems

Delayed puberty

Oral ulcers

Perianal fissure

Arthritis

Tenderness of right upper quadrant

Tenderness over spine

Hepatomegaly

Splenomegaly

Jaundice



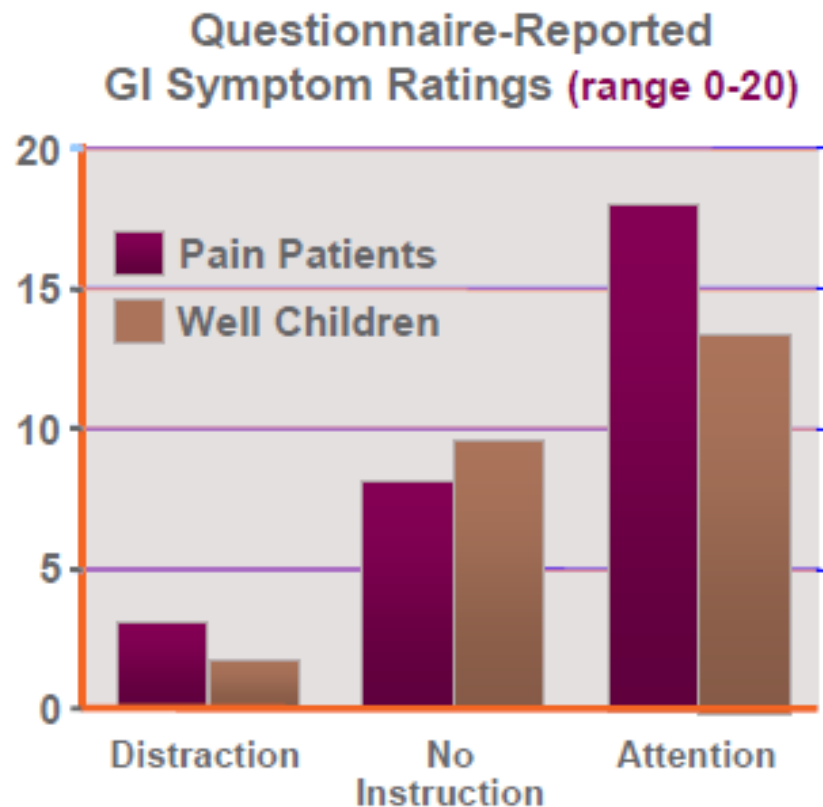
# Medications for Abdominal Pain

- Empiric trials for acid suppression often done
- Many also use homeopathy
- For pain of unknown cause:
  - Use of narcotics is an indication for admission and evaluation

# Back to our case 3

		<u>Functional</u>	<u>Organic</u>
1. Start?		X	
2. Location?	Peri-umbilical	X	
3. Duration?	Variable	X	
4. Description?	Vague	X	
5. Improvement?	No relief on Rx	X	
6. Worsens?	School Absence	X	
7. Intermittent?	Variable	X	
8. Signs/Sx?	None	X	

## Parent Attention vs. Distraction



- Pain induced by water load test
- Parents randomized to using distraction or attention in their interaction with children in pain
- All mothers felt distraction was inappropriate response to pain

Walker LS et al. *Pain* 2006, 122: 43

# Long term

- Dietary manipulation might help – always reintroduce suspected foods to see if deteriorate
- Involve child
  - What event make it worse (stress or anxiety)
  - Help develop ways to cope with such events
  - May need mental health - CBT
- Social factors
  - Get child to open up how social situation might interact with symptoms
    - Bullying.
    - Witness or suffer physical/sexual abuse
    - Open questioning to allow child to open up

# Prognosis

- Complete resolution 35-50%
- Continuing symptoms to adulthood 25%



## Can we predict a poor outcome?

- refusal to engage with psychological services
- involvement of more than three consultants
- lodging of a manipulative complaint with hospital management by the child's family
- lack of development of insight into psychosocial influences on symptoms