DO WE FIND THE REAL MASQUERADERS?

Chris Mercer
Consultant Physiotherapist
WSHFT

MASQUERADE
ˌməskəˈrād, mas-

- masquerade 1590s, from Fr. mascarade or Sp. mascarada "masked party or dance," from It. mascarata "a ball at which masks are worn"
- var. of mascherata "masquerade," from maschera (see mask).
- Figurative sense of "false outward show" is from 1670s. The verb is attested from 1690s.

JUST HAVE A BALL
Dr. Chris Mercer

Chris is a Consultant Physiotherapist and has a split role, as clinical lead for MSK at Western Sussex Hospitals NHS Trust, and Lead for the Spinal Clinic there. He has a particular interest in Spines, and has been involved in the development of several national and international guidelines related to the management of Low Back Pain and Neck Pain.

THE ANATOMY OF MELANCHOLY-1621

- Robert Burton aka Democritus Junior
- Wide-ranging text
- Hypochondria
  - "windy hypochondrial melancholy with abdominal pain, back pain, sharp belching, heat in the bowels, wind and rumbling in the guts, griping and pain in the belly"
- Based on the 2000 year old 4 humors of Galen
  - Blood
  - Phlegm
  - Yellow bile
  - Black bile (melancholy)

GRIEVE'S

63. The masqueraders

G. P. Grieve

THE VERTEBRAL COLUMN

Jeffrey D. Boleying
Nigel Polstanga

Churchill Livingstone
“Things are not always what they seem - be informed and awake”

“If we take patients off the street, we need more than ever to be awake for those conditions which may be other than musculoskeletal”

“Perhaps successors might take up this important theme”

SUCCESSORS

- Metastases
- MSCC
- Myeloma
- Discitis
- Tumour
- Tuberculosis
WHAT ARE WE TALKING ABOUT?

**Mechanical Low Back or Leg Pain (19%)**
- Lower back pain
- Severe lower back pain
- Severe neck pain
- Severe headache
- Spinal arthritis
- Degenerative disease of lumbar spine
- Spinal cord compression
- Spinal infection
- Spinal end-plate degeneration
- Spinal disc herniation
- Spinal stenosis
- Spinal instability
- Internal disc disruption or degenerative disc disease
- Nerve root compression

**Non-mechanical Spinal Conditions (13%)**
- Nerve root compression (6%)
- Multiple myeloma
- Metastatic carcinoma
- Lymphoma and leukaemia
- Spinal cord tumours
- Rheumatoid arthritis
- Primary vascular tumours
- Ankylosing spondylitis
- Spinal epidural abscess
- Ankylosing spondylitis
- Severe lower back pain

**Vascular Diseases (12%)**
- Peripheral vascular disease
- Renal infection
- Hypertension
- Phlebothrombosis
- Femoral varicose
- Arteriovenous
- Cardiomegaly
- Hypertension

SOURCES OF SPINAL PAIN

**Spinal Pain**

- Mechanical
- Neuromuscular
- Other
- Degenerative
- Symptomatic

**Systemic**

- Cardiac
- Pulmonary

**Endocrine**

- Thyroid
- Parathyroid

**Dermatologic**

- Skin
- Hair

**Other**

- Neurologic
- Psychologic

**Gastrointestinal**

- Liver
- Stomach
- Large intestine
- Small intestine

**Pain referral**

- Sciatic pain
- Femoral pain
- Plantar pain
- Lumbar pain

**Sources of Spinal Pain**

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MECHANISM


LOCATION

- Convergence of somatic and visceral afferents
INNERVATION

- **T5-9**: greater splanchnic nerve
  - Stomach
- **T9-10**: Small intestines
- **T10-11**: lesser splanchnic nerve
  - Aortic and renal plexus
- **T12**: least splanchnic nerve
  - Renal plexus
- **L1-2**: lumbar splanchnic nerve
- **S2-4**: pelvic splanchnic nerve
  - Colon, rectum

INCIDENTAL FINDINGS

- **Park et al (2011) AJR Am J Roentgenology**
  - 1298 patients
  - 8.4% IF of spinal origin
  - Haemangioma, Tarlov cysts, Fibrolipoma
- **Lee et al (2012) Radiology**
  - CT scans lumbar spine
  - 4.6% clinically important IF
  - 72% unreported
- **Quattrocchi et al (2013) Insight Imaging**
  - 3000 patients
  - 68.6% IFs
  - 27.6% clinically relevant
  - 3024 patients
  - 859 IFs in 671 patients (22%)
  - 73% unimportant
  - 22% likely unimportant
  - 5% potentially important
  - 40% not mentioned in the report
  - 1278 patients
  - 253 IFs in 241 patients (18.8%)
  - 37% visceral
  - 13 renal and adrenal masses, 7 lymphadenopathy, 2 AAA
EXAMINATION

- Thorough Subjective examination
  - Location of pain
  - Pain behaviour
  - History of onset
  - General health
  - PMH

PAIN BEHAVIOUR

- Effect of visceral activity like:
  - Eating
  - Food types
  - Bowel function
  - Micturition

EXAMINATION

- Physical to include:
  - Abdominal observation
  - Abdominal palpation
  - Abdominal auscultation
  - “the usual”
LOCATION OF PAIN

URO-GYNAECOLOGICAL REFERRAL


- 36 women with CPP 29 without
- Screening tests for SIJ and Lx
- Internal palpation 13 landmarks
- Mapping of pain

OVARIES

- Cysts - 64%>55 years old 7% lifetime prevalence
- Tumours - 9000/year 2000 deaths per year 75% 10year survival
- Torsion

- Sacral pain
- Suprapubic pain
- Abdo tender o/p
- Bloating
- Decreased appetite
- Full after eating small amounts
- Urinary frequency
- Urinary urgency
- Constipation
- Fatigue
- PV bleed
- Dyspareunia
- Weight change
- Menorrhagia
UTERUS

- Fibroids
- Tumour
- Endometriosis

- PV bleed 90%
- Dyspareunia
- Loss of appetite
- Fatigue
- Menorrhagia
- Abdominal pain
- Lx/pelvic pain
- Post leg pain
- Frequency
- Constipation

ADENOMYOSIS PLUS SOLID MASS
BLADDER

- Suprapubic pain
- Lx/buttock pain
- Perineal pain
- Frequency
- Painful micturition
- Changes in habits
- Repeated infection

RENAL DISEASE

  - 2.6 m people over 16 have CKD grade 3-5
  - 6.1% of population
  - 10-36% of over 65
  - 30-35% of over 75
- Hastings, Eastbourne, Coastal West Sussex, Isle of Wight all in the top 10!

RENAL PAIN

- Pyelonephritis
- Kidney stones
- Renal Ca
- Pain over kidneys - ant and post
- Tenderness o/p CVA
- Pain on micturition
- Haematuria
- Temperature
- Cystitis
- Female > male
RENAL CYST

ABDOMINAL AORTIC ANEURYSM
Prevalence is 1.3-12.7% in the UK.
Symptomatic AAA in men has an incidence of 25 per 100,000 at age 50.
78 per 100,000 over the age of 70.
4% men and 1% women >65 have AAA
70% of people have no symptoms at diagnosis
8000 deaths per annum in the UK
The incidence of AAA rose from the 1970s to 2000 but is now declining.
6cm must inform DVLA
6.5 cm disqualified from driving

Incidental finding in 70%
Abdominal, back or loin pain
May have leg pain
Gradual or sudden onset
Mechanical or non mechanical
May have other aneurysms
Grey Turners sign: flank bruising with leaking/rupture

- 137 patients with thyroid disease
- 11% adhesive capsulitis
- 9% duypytrons
- 9.5% CTS (++ in hypothyroid
- Joint stiffness 4.4%
THYROID DYSFUNCTION

- Hypothyroid
  - Paraesthesia hands and feet
  - Joint/muscle pain
  - CPPD
  - Low mood
  - Fatigue
  - Weight increase
  - Increased cold sensitivity
  - Decreased HR

- Hyperthyroid
  - Muscle weakness
  - Tremor
  - Nervousness
  - Increased sweating
  - Bowel frequency
  - Hypertension
  - Tachycardia
  - Lighter periods

CARDIAC PAIN

- Angina
- Chest pain
- L arm pain
- Throat pain
- Thoracic pain
- Ant Cx pain
- SOB
- Exercise induced
- PMH

GI REFERRAL

Anatomy of the Abdomen
GALL BLADDER

- Local or referred pain
- Non-mechanical...... mostly
- Post eating
- Fatty foods
- 4Fs-but not always!

LIVER

- Dull ache
- Can be sharp/stabbing
- Local or referred
- Worse with deep breath
- Worse with cough
- Locally tender o/p

LIVER PAIN- EXAMINATION

- Jaundice
- Skin itching
- Yellowing of eyes
- Dark Circles around eyes
- Sweating
- Fever
- Strong body odour
- Bad breath
- Pale/grey stools
- Dark urine
- Joint pain/back pain
- Fatigue
- Weight loss
- Nausea/vomiting
- Bloating
- Testicular swelling
PANCREAS

- Epigastric pain
- Across upper abdomen
- 50% have left thoracic pain T5-9
- May have left shoulder pain C3-5 if tail of pancreas involved
- Anorexia, nausea and vomiting in 90% of cases
- Increased HR and RR
- Worse with:
  - Cough
  - Walking
  - Supine lying
  - Deep breath
- Associated with:
  - Alcohol intake
  - Diabetes
  - Gallstones
  - High amylase and lipase levels

STOMACH

- Upper left abdominal pain
- Left thoracolumbar pain
- Nausea, vomiting
- Belching, bloating
- Weight loss, anorexia

BOWEL

- Low back pain
- Lower abdominal pain L>R
- Changes with bowel movement
- Changes to stools
- Increased flatus
- Decreased bowel sounds
- Tender O/P
- 41000 cases per year
- 16000 deaths
- 57% 10 year survival
CAUSES OF SPINAL PAIN

- Masqueraders may be spinal or non-spinal
- Non-spinal masqueraders more common than spinal
- Should we balance our focus to include non-spinal
- "Things are not always what they seem - be informed and awake"

IN SUMMARY

- Masqueraders may be spinal or non-spinal
- Non-spinal masqueraders more common than spinal
- Should we balance our focus to include non-spinal
- "Things are not always what they seem - be informed and awake"

IF ALL ELSE FAILS....

Thank you for listening - do you have some questions?