

The Illustrated MRCP PACES Primer

Sebastian Zeki



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Contents

Preface	vi	Mixed Mitral Valve Disease	31
About the Author	vii	Patent Ductus Arteriosus	32
Acknowledgements	viii	Permanent Cardiac Pacemaker	33
Dedication	ix	Primary Pulmonary Hypertension	34
Abdominal System	1	Prosthetic Valves	35
Abdominal Masses	2	Pulmonary Stenosis	36
Ascites	3	Tricuspid Regurgitation	37
Cirrhosis	4	Ventricular Septal Defect	38
Crohn's Disease	5	Dermatology	39
Haemochromatosis	6	Alopecia Areata	40
Hepatomegaly	7	Bullous Diseases and Varicella Zoster Syndrome	41
Primary Biliary Cirrhosis	8	Facial Problems 1	42
Splenomegaly	9	Facial Problems 2	43
Transplanted Kidney	10	Hereditary Haemorrhagic Telangiectasia	44
Unilateral Palpable Kidney	11	Hirsutism	45
Wilson's Disease	12	Hypopigmentation and Reticulated Rashes	46
Cardiovascular System	13	Ichthyosis	47
Aortic Regurgitation	14	Legs and Henoch–Schönlein Purpura	48
Aortic Stenosis	15	Malignant Melanoma	49
Coarctation of the Aorta	16	Miscellaneous Dermatology	50
Congestive Cardiac Failure	17	Miscellaneous 2	51
Constrictive Pericarditis and Pericardial Rub	18	Mouth Lesions	52
Dextrocardia	19	Nails	53
Ebstein's Anomaly	20	Nose	54
Eisenmenger's Syndrome	21	Pigmented Lesions	55
Fallot's Tetralogy	22	Pseudoxanthoma Elasticum	56
Hypertension	23	Psoriasis	57
Hypertrophic Obstructive Cardiomyopathy	24	Raynaud's Phenomenon	58
Infective Endocarditis	25	Systemic Dermatological Manifestations 1	59
JVP	26	Systemic Dermatological Manifestations 2	60
Mitral Regurgitation	27		
Mitral Stenosis	28		
Mitral Valve Prolapse	29		
Mixed Aortic Valve Lesion	30		

Endocrinology	61	Neurology	97
Acromegaly	62	3rd and 6th Nerve Palsy	98
Addison's Disease	63	7th Nerve Palsy	99
Cushing's Syndrome	64	Argyll Robertson Pupil and	
Exophthalmos	65	Holmes–Adie Syndrome	100
Graves' Disease	66	Becker's and Other	
Gynaecomastia	67	Muscular Dystrophies	101
Hypopituitarism	68	Bilateral Spastic Paralysis	
Hypothyroidism	69	(Spastic Paraparesis)	102
Multinodular Goitre	70	Brown–Séguard and	
Pretibial Myxoedema	71	Cauda Equina Syndromes	103
		Carpal Tunnel Syndrome	104
		Cerebellar Syndrome and	
		Tremors	105
Ophthalmology	72	Charcot–Marie–Tooth Disease	106
Cataracts	73	Chorea and Hemiballismus	107
Diabetic Retinopathy	74	Combined Cranial	
Hypertensive Retinopathy	75	Nerve Problems	108
Miscellaneous		Deformed Lower Limb	109
Ophthalmology 1	76	Dystrophia Myotonica	110
Miscellaneous		Friedreich's Ataxia	111
Ophthalmology 2	77	Gait	112
Optic Atrophy	78	Guillain–Barré	113
Papilloedema	79	Hemiplegia and Strokes	114
Retinitis Pigmentosa	80	Horner's Syndrome and Ptosis	115
Retinal Vein and		Internuclear Ophthalmoplegia	116
Artery Occlusion	81	Motor Neurone Disease	117
		Multiple Sclerosis	118
Miscellaneous	82	Myasthenia Gravis	119
Achondroplasia	83	Neurofibromatosis	120
Chronic Lymphocytic		Nystagmus	121
Leukaemia	84	Parkinson's Disease	122
Clubbing	85	Peripheral Neuropathies	123
Down's Syndrome	86	Proximal Myopathy	124
Dupuytren's Contracture	87	Pseudobulbar and Bulbar Palsy	125
Ehlers–Danlos' Syndrome	88	Radial Nerve Palsy	126
Klinefelter's Syndrome	89	Retro-Orbital Tumour	127
Marfan's Syndrome	90	Speech	128
Miscellaneous	91	Subacute Combined	
Osteoporosis	92	Degeneration of the Cord	129
Paget's Disease	93	Syringomyelia	130
Peutz–Jeghers' Syndrome	94	Tabes Dorsalis	131
Tuberous Sclerosis	95	Torsion Dystonia	132
Turner's Syndrome	96	Ulnar Nerve Palsy	133
		Visual Field Problems	134
		Wallenberg's Syndrome	135
		Wasted Small Hand Muscles	136

Respiratory	137	Rheumatology	150
Asthma	138	Ankylosing Spondylitis and	
Bronchiectasis	139	Charcot's Joints	151
Consolidation	140	Dermatomyositis	152
COPD	141	Psoriatic Arthropathy, Gout and	
Cor Pulmonale and Pleural Rub	142	Osteoarthritis	153
Cystic Fibrosis	143	Rheumatoid Arthritis	154
Fibrosing Alveolitis	144	Rheumatoid Arthritis –	
Lung Cancer	145	Extra-Articular	
Old TB	146	Manifestations	155
Pickwickian Syndrome	147	Systemic Lupus Erythematosus	156
Pleural Effusion	148	Systemic Sclerosis	157
Pneumothorax	149		

Preface

The MRCP PACES examination remains a rigorous assessment of a doctor's ability to diagnose and treat a variety of common and uncommon conditions. Candidates will have seen many of the conditions before but equally so, many will be unfamiliar. The examination requires an easy familiarity with all the conditions and as such the candidate is supposed to have quick access to the knowledge required for any case in PACES.

This book is an attempt to ease the burden of reading for the candidate so he or she can concentrate on actually making diagnoses and examining patients in preparation. The emphasis is on one page layouts for each of the conditions with an abundance of memory techniques to help the candidate remember as much detail as possible. These include visual as well as verbal mnemonics. Emphasis is taken away from basic sciences as they are not tested in this examination. The book is, in essence, what you actually need to know in as easy a layout as possible.

We'd be grateful to hear readers' comments, ideas for layout/pictures and especially mnemonics that can be added in future editions. All published mnemonics will receive an acknowledgement. Please send your comments to editorial@radcliffemed.com

Sebastian Zeki
April 2009

About the Author

Sebastian Zeki is a gastroenterology registrar in London. He was born in London, went to Westminster School and then attended medical school at Gonville and Caius College, Cambridge and University College London. He qualified in 2001, has gained further degrees in medical informatics and computing whilst a doctor, and gained membership to the Royal College of Physicians in 2005. He is still working on his artwork ...

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Dedication

This book is dedicated to my mother and father and to Radha who spent a great deal of time laughing at the pictures ...



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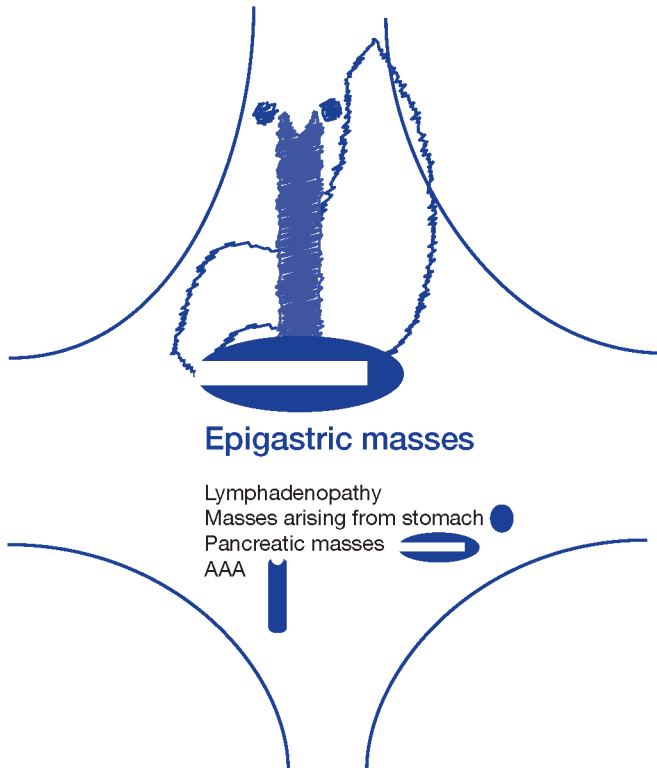
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Abdominal System

Abdominal Masses
Ascites
Cirrhosis
Crohn's Disease
Haemochromatosis
Hepatomegaly
Primary Biliary Cirrhosis
Splenomegaly
Transplanted Kidney
Unilateral Palpable Kidney
Wilson's Disease

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Abdominal Masses



Right iliac fossa mass

- L**ymph nodes
- O**vary (tumour)
- C**rohn's
- C**aecal cancer
- C**arcinoid
- K**idneys(transplanted or ectopic)
- Amoebiasis
- Actinomycosis
- Abscesses (ileocaecal/ appendiceal)

Left iliac fossa mass

- L**ymph nodes
- O**varian cancer
- C**olonic – cancer
- Diverticular abscess, faeces
- K**idney (transplanted)

Ascites

Causes

Cirrhosis

CCF

Cancer (primary/ secondary)

Nephrotic

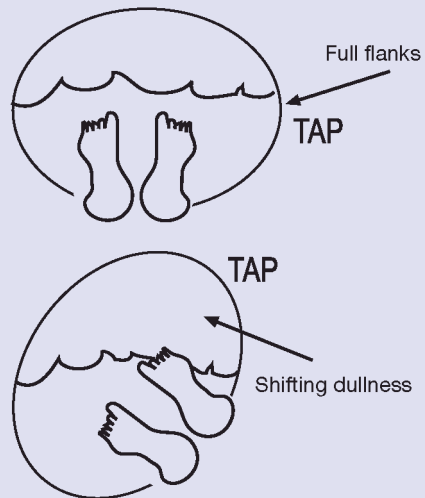
Constrictive pericarditis

TB

Budd–Chiari

NB: Separate into whether due to portal hypertension or not on the basis of the serum to ascites albumin gradient (SAAG) if >11 mmHg then due to PHTN the causes of which include cirrhosis/ Budd–Chiari, etc.

Features



Complications

Respiratory problems
Spontaneous bacterial peritonitis

Management of ascites

Diuretic responsive ascites

(NaFD)

Na: Sodium restriction (<88 mmol/day)

F: Fluid restriction (if Na <120)

D: Diuretics (spironolactone + frusemide)

Diuretic resistant ascites

Paracentesis + albumin

Peritoneovenous shunt (LeVeen shunt)

TIPPS

Extracorporeal ultrafiltration

Liver transplantation

Cirrhosis

= Fibrosis with abnormal regenerating nodules

Causes

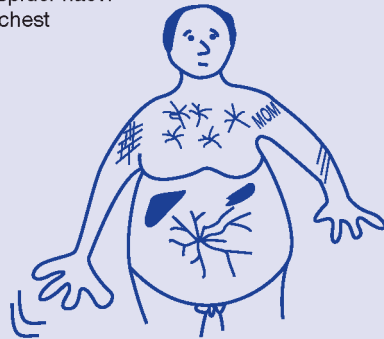
- A**utoimmune (PBC/CAH)
- a**lpha1 antitrypsin
- I**atrogenic (methyl dopa/ methotrexate/ amiodarone/ azathioprine)
- V**iral (Hep B)
- E**xcess alcohol
- R**(haemochromatosis/ Wilson's)

Investigations that everyone should get

Bloods: FBC/ LFT/ PT Hep B/ Auto-Ab aFP/ Ferritin
 Fluids: Ascites
 Radiology: Liver USS

Head

Jaundice
 Encephalopathy
 >5 spider naevi chest



Hand signs

Clubbing
 Dupuytren's contracture
 Flap
 Tattoos
 Excoriation marks

Abdomen

Hepatosplenomegaly (not always)
 Caput medusae
 Testicular atrophy
 Ascites
 Bruising

Complications

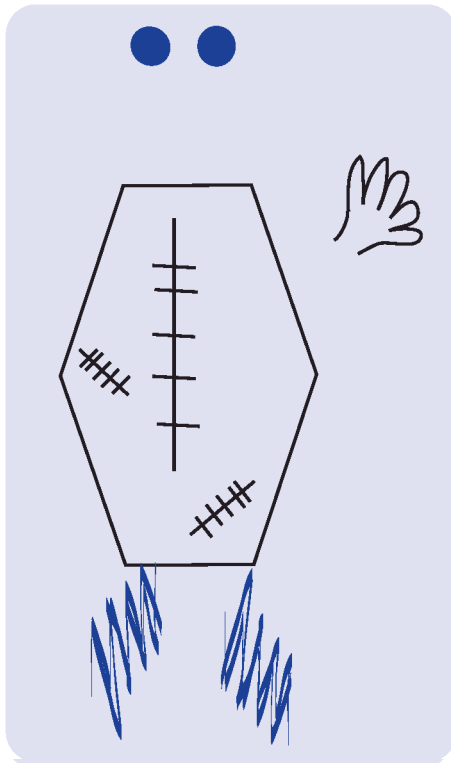
- G**lucose low
- R**enal failure
- E**ncephalopathy
- A**scites
- T**hypotension
- C**oagulopathy
- N**utrition
- G**lycaemia
- S**epsis

TIPS

Once you have found chronic liver disease signs, you know this patient has cirrhosis – now find a cause – unkempt? (=EtOH), tattoos (=Hep B), massive hepatomegaly (+PBC). If there are no chronic liver disease signs, consider pre- (most likely in the exam) or post-hepatic causes of jaundice.

Pre-hepatic causes can be separated into congenital (haemoglobin defects, e.g. sickle cell, or membrane defects, etc.) or acquired.

Crohn's Disease



Features

Iritis

Clubbing

Multiple abdominal scars

Patient may be small (given steroids as a child)

Erythema nodosum

Pyoderma gangrenosum

Associations

Hepatobiliary: gallstones, steatosis

Eye: iritis, episcleritis

Signs of nutritional deficiencies, e.g. angular cheilosis (B12), anaemia, dermatitis (zinc)

Renal: oxalate stones

Investigations

Endoscopy

CT for abdominal masses

Barium follow through

Treatment

Metronidazole and ciprofloxacin

Elemental diet (controversial)

Steroids

Steroid-sparing agents (azathioprine/ methotrexate)

TNF-alpha antagonists

Haemochromatosis

Clinical manifestations

Liver disease (worse with Hep C and EtOH)
Hepatocellular carcinoma (increased x200)
Diabetes mellitus (selective for beta cell)
Arthropathy – (squared-off bone ends and hook-like osteophytes in the metacarpophalangeal (MCP) joints, particularly of the second and third MCP joints)
Heart disease (15% of HH)
Hypogonadism (usually pituitary origin)
Hypothyroidism (deposition in thyroid)
Extrahepatic cancer (controversial)
Susceptibility to specific infections
(*Listeria*/ *Yersinia* (siderophage)/ *Vibrio vulnificus* (from uncooked seafood))
Manifestations in heterozygotes (rarely due to HH alone)

Secondary iron overload

Ineffective erythropoiesis (thalassaemia, aplastic anaemia, red cell aplasia, SCD)
Chronic liver disease
Excessive medicinal iron
Parenteral iron overload
Porphyria cutanea tarda

Investigations

Radiology

CT/MRI – liver is white/black respectively

Liver biopsy

To determine hepatic iron content

Familial things

Test all first degree relatives by PCR or HLA typing (A3)

• Homozygote relative

12-monthly transferrin sats – venesect if more than 45%

• Heterozygote relatives

Liver biopsies if LFTs abnormal.

Treatment

Bleed 1–2x/ week
Hct shouldn't fall >20% of previous level
Aim for ferritin between 25–50 ng/mL
Avoid Vit C/ uncooked seafood



Results

Improves everything except

- advanced cirrhosis
- arthropathy
- hypogonadism

Prognosis

Cardiac failure = bad sign
Survival normal if no diabetes/liver damage
If cirrhotic 70% 5-year survival
One-third of cirrhosis die from HCC