GASTROINTESTINAL PATHOLOGY

Professor Bryan F Warren, Consultant Gastrointestinal Pathologist, Governing Body Fellow of Linacre College, Oxford. Honorary Professor Queen Mary University of London.
1. DALM/UC dysplasia

- dysplasia present in adjacent flat mucosa
- dystrophic goblet cells
- distorted/variable dysplastic crypts: looks odd
- 5% after 10 years, 20% after 20 years
- <3% in retained rectum
- Management—will be discussed.
2. Pseudomembranous colitis

- antibiotic-associated colitis
- usually after broad spectrum antibiotics
- also post-surgery or chronic debilitating illness, i.e., elderly, overgrowth of C. Difficile (commensal)
- toxin A in stool
- severe acute colitis - megacolon & perforation
- Rx - Vancomycin, 1/4 may relapse,
- Differential diagnosis acute ischaemic colitis,
3. Coeliac disease & lymphocytic gastritis

- Must see ≥3 bx to assess duodenum as normal
- Genetic predisposition: Celtic, 1/2-300, childhood onset usually
- Wheat gliadin (barley, rye)
- Abnormal cell-mediated immunity, increased cytotoxic T cells.
- HLA-association and lymphocytic colitis, lymphocytic gastritis (30%) autoimmune disease,
- Duodenal appearances recover after gluten-free diet
- IgA EMA or AGA, TTG
- Risks EATL and Ca
Coeliac disease & lymphocytic gastritis

- >1/4 IELs like coeliac, but rarer
- 1 in 3 coeliacs, HP rare (but Rx may help)
- targetoid endoscopically: classically varioliform
- no gland destruction v lymphoma
4. Colonic vasculitis

- PAN, Churg-Strauss, small vessel/leukocyticlastic, phlebitis (not systemic)
- punched out ulcers classically
- history and serology: ANCA, autoimmune disease: SLE
5. Barrett’s with LGD

- patchy, no macro changes
- may progress for up to 10 years
- if HGD - up to half progress to adenocarcinoma
- increased risk if multifocal or extensive
- Seattle- 4 quadrant jumbo biopsies every 2cm and any macro lesions
- sharp cut off, surface involvement, no associated inflammation
- local Rx - EMR & PDT & HALO
- Double reporting!
6. Oesophageal leiomyoma

- common at this site men in 30s, distal
- if large, obstruction - excise if symptomatic
- white whorled appearance on cut surface, 2-5cm, rarely ulcerate
- c-Kit & DOG1 negative. Must do immuno panel.
7. Ampullary adenoma

- increased in FAP, associated with PanIN
- pseudoinvasion
8. Gastric bronchogenic cyst

- developmental defect: fusion of tracheo-oesophageal septum
- usually higher and closer to the trachea and bronchi
- present in childhood or middle age
- usually asymptomatic
- wall can calcify and mould to adjacent structures
- tissue resembles normal bronchi - respiratory epithelium (squamous metaplasia), smooth muscle, cartilage
- Other possibility - mature cystic teratoma
9. Ischaemia & sclerosing peritonitis

- idiopathic, beta blockers, chronic ambulatory peritoneal dialysis
- associated dry eyes, itchy scaly skin lesions
- can encase small bowel - complex inflammatory mass
10 & 11. Metastatic lobular Ca
breast/recurrent endometrial Ca

- MM, renal cell Ca: mimics at odd sites
- single file, small atypical cells, primary may be a long time previously, immuno, no dysplasia or mucosal origin, submucosal only.
- prostate Ca in men
12. Small bowel adenocarcinoma & coeliac disease

- FAP, HNPCC, PJS, NFI, Crohn’s and coeliac
- usually advanced at presentation
13. Mantle cell lymphoma

- multiple lymphomatoid polyposis: tend to be multiple nodular lesions which coalesce
- males in 60s, throughout the GI tract
- <3 year survival
- +CD20, CD5 and cyclin D1, T cell markers -ve
- DDx - NLH: reactive follicular nodules
14. GIST (post Rx)

- 2/3 in stomach, ICC: pacemaker, peristalsis
- >10cm, > 5mitoses/10 HPF (ulceration, cellularity, pleomorphism, necrosis)
- spectrum of risk
- fundic gland polyps: FAP v PPI
- c-Kit, DOG1, CD34 +ve Immunoprofile may change after RX
- Miettenen criteria for prognosis!
15. Autoimmune gastritis & a microcarcinoid (Endocrine cell) tumour

- type A, <10%, asymptomatic
- reduced acid, raised gastrin, 90% auto Ab v parietal cells
- autosomal dominant and association with autoimmune disease
- IF loss & PA occasionally
- indolent microcarcinoids
- IM, atrophy, replaced by antral glands, endocrine cell hyperplasia
Appendiceal crypt cell carcinoma

- mucinous
- divergent differentiation of crypt stem cells
- behaves more like an adenocarcinoma
- 6%, older age
- 20% spread and up to 13% fatal
- size, lymphovascular invasion, peritoneal involvement, excision
- PAS and neuroendocrine markers
- Differential diagnosis - metastatic signet ring cell Ca

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17. Gall bladder dysplasia

- 1-3% HGD, associated with a rare, but aggressive adenocarcinoma
- beware ulceration/acute inflammation
- embed whole gall bladder
- no macro lesion
- surface involvement and sharp cut off
18. HSV oesophagitis

- 2nd most common after Candida (can co-exist)
- usually in immunosuppressed - perforation and dissemination
- shallow vesicles and punched out ulcers leading to more extensive erosion
- inclusions in multinucleate squames
- Cowdry type A (dense eosinophilic intranuclear & cytoplasmic)
- thickened nuclear membrane and clear halo
- ground glass inclusions and nuclear moulding

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19. Follicular proctitis

Described by F Potet.

- Chlamydia infection,
- Differential diagnoses UC with prominent lymphoid follicles or diverted rectum in UC
- uncommon
- does not progress to lymphoma
20. Serrated adenoma with LGD

- 1-2% all polyps
- dysplastic with hyperplastic architecture (v. mixed)
- usually distal
- MSI assoc and methylation especially if large, right-sided and multiple
- 6% risk of adenocarcinoma and present with 6% of adenocarcinomas
- often <1 cm
- loss of MLHI and K-ras mutations (v APC)
- different cancer pathway: HNPCC; or in Serrated Pathway Syndrome (Braf mutation)
21. Collagenous colitis

- chronic watery bloodless diarrhoea
- normal colonoscopy - mucosal splitting
- Normal crypt architecture
- developed world, associated with NSAIDs
- Coeliac
- Rectal sparing in 30%
- contains inflammatory cells and vessels (v. amyloid) -trichome
22. Peutz-Jeghers polyp

- hamartomatous, rare: 1/200,000, throughout GI tract
- autosomal dominant with variable penetrance
- 20s, intussusception and bleeding
- orocutaneous pigmentation
- association with GI adenocarcinoma, SCTAT, gynae and breast Ca
- large, lobulated and pedunculated: associated adenomas
- smooth muscle arborisation
23. Gastric hyperplastic polyp with HGD

- regenerative, ie. not like in the colon
- majority of gastric polyps
- associated with reactive gastritis (therefore bx background)
- usually >50
- any dysplasia carries a significant cancer risk, but rare
- present in 20% stomachs resected for cancer
- usually <2cm, sessile, multiple, antral, focal IM

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24. Duodenal giardiasis

- Giardia lamblia
- malabsorption, chronic diarrhoea, immunosuppressed
- Look for any abnormality of cells in lp? lymphoma etc
- faecally contaminated water, developing world/travel
- attaches to mucosa, but does not invade
- mucosa can mimic coeliac disease
- teardrop/pear-shaped with paired nuclei on the luminal surface
25. Xanthogranulomatous cholecystitis

- 1-2%
- usually elderly females
- rupture of R-A sinuses with bile extravasation
- mimics cancer - hard wall with focal nodules
- yellow/brown cut surface, ulceration
- cholesterol clefting & FBGC
- perforation, abscess and fistulae
26. Crohn’s/granulomas in colonic biopsies

- 50% of cases
- submucosal within lymphoid aggregates
- non-caseating, non coalescing, epithelioid
- v. intramucosal/crypt-related: can see in UC and many other colitides
27. Oesophageal carcinosarcoma

- sarcomatoid carcinoma, spindle cell SQCC
- males, middle-age +
- polypoid, lower oesophagus
- survival >50%, better prognosis as growth intraluminal
- 30% mets
- metaplasia v collision tumour
- bulky, short pedicle, ~6 cm, normal adjacent mucosa
- both components cytokeratin positive
- MFH-like + bone and cartilage
- Watch out- can be DOG 1 positive!
28. Pancreatic heterotopia

- usually near ampulla, also stomach and jejunum
- may block ampulla
- incidental nodule at surgery - FS
- submucosal/intramural
- yellow/white, lobulated, <4cm, central mucosal dimple
- no islets