19

Varying gastric sensitivities of *H. pylori* (*Hp*)

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Background Causes of eradication failure (EF) often remain unclear and may include multiple strains within an individual.
Aim To determine *Hp* susceptibility at 4 separate gastric sites.
Methods Biopsies from the antrum, distal body, proximal body and fundus of 57 patients were cultured for susceptibility to metronidazole (M), clarithromycin (C), tetracycline (T) and amoxycillin (A). Most had previously received *Hp* eradication therapy. The *E*-test breakpoints were at = 8 μg/L for M, = 2 μg/L for C, = 4 μg/L for T and = 0.5 μg/L for A.
Results In 23 patients isolates from all 4 sites showed uniform sensitivity. In 27 (47%) at least one *Hp* isolate cultured was resistant to M. In 17 (30%) at least one *Hp* isolate cultured was resistant to C. In 10 patients strains showed resistance to both M and C. Of patients with *Hp* resistant to M, 33% displayed 'variability' with both sensitive and resistant strains isolated from different gastric sites. Of the patients with C-resistant *Hp*, 47% showed variable sensitivity between sites. No isolates were resistant to A or T.
Conclusions 1. Both M & C sensitive *and* resistant strains coexisted within the stomach in 33–47% of patients. 2. Variations may be even more complex if more sites were sampled. 3. Variable sensitivity may account in part, for the need for multiple antibiotics and unexplained EF. 4. Single-site culture is an inadequate test upon which to base therapeutic decisions.

20

Rifabutin – key to *H. pylori* rescue therapy?

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Background Rifabutin is used as treatment for Mycobacterium avium complex and resistant tuberculosis. Helicobacter pylori (Hp) is also particularly sensitive to rifabutin which has shown synergism with omeprazole and amoxycillin.
Aim To determine the efficacy of a rifabutin-based eradication therapy in patients with previous Hp treatment failure.
Methods Twenty-three patients (9 m, 14 F; 28–69 y) with 1–4 failed eradication attempts had Hp-specific antibiotic sensitivity profiles determined. Four regimes were used (due to allergies) with the most frequent being rifabutin (150 mg/day), amoxicillin (1 g tds) and PPI (80 mg tds). Duration of treatment was 12 days with analysis of WCC at baseline then every 4 days. Eradication of Hp was determined using urea breath test or histology/culture of endoscopic biopsy.
Results Frequency of Hp resistance to metronidazole and clarithromycin was 78% and 74%, respectively, with 65% of patients showing resistance to both. Twenty-two patients completed treatment with an overall Hp eradication rate of 87%. Common side-effects included lethargy (52%), abdominal pain/discomfort (22%), diarrhoea (17%) and leucopoenia (4%).
Conclusions (a) Rifabutin-based re-treatment of failed therapies appears to have one of the highest eradication success rates available. (b) This is a relatively well-tolerated treatment although monitoring of leucocytes is recommended.

21

Clinical assessment of polyps identified at colonoscopy

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Background The clinical significance of small colonic polyps is unclear and removal has frequently been decided on clinical appearance of the lesion, its location and the procedualist's assessment of neoplasia risk. In addition, with increasing demand for colonoscopy, less invasive techniques with a lower sensitivity for polyp detection such as virtual colonoscopy, are now being considered.
Aim The aim was to determine the rate of advanced lesions (villous component or high grade dysplasia) in polyps ≤ 5 mm in size and whether clinical impression can be used to determine the histological status of a polyp.
Method We prospectively collected data on 338 polypoid lesions removed from 125 subjects out of 320 consecutive colonoscopies. Lesion size was determined at colonoscopy and compared with the histological measurements. Lesion location, patient age, sex and the colonscopist's clinical impression were recorded and correlated with the lesions' histology.
Results Clinical assessment of lesion size was consistent with histological measurements. A total of 58% of lesions were neoplastic (tubular 43%, tubulovillous 12%, adenocarcinoma 3%) and benign in 42% (hyperplastic 36%, other benign histology 6%). In the 217 lesions ≤ 5 mm in size, 44% (97) were neoplastic, 6% (13) had a villous component and one 3 mm lesion was malignant. In the 82 polyps 5 < and ≤ 10 mm in size, 78% (64) were neoplastic, 20% (16) showed a villous component and 1 was malignant. Of the 38 polyps > 10 mm in size 89% (34) were neoplastic 29% (11) had a villous component and 21% (8) were malignant. Factors predictive of neoplasia were age of patient, size of polyp and site outside the rectum. Clinical assessment of lesion histology had a positive predictive value of 69%, negative predictive value of 77%, sensitivity of 89%, and specificity of 46% for detection of neoplastic polyps. Factors predictive of correct clinical impression were older patient age, female sex, larger polyp size and greater experience of the endoscopist, but not polyp location.
Conclusion Small polyps ≤ 10 mm have a significant risk of neoplasia and being advanced lesions, whilst clinical assessment of polyp type at colonoscopy is generally poor. Removal of all lesions, regardless of size, location or clinical impression, should therefore be considered and the use of methods such as virtual colonoscopy for the purposes of CRC screening may miss significant numbers of advanced polyps.