Chapter 8: Training in Inflammation and Enteric Infectious Disease

DDSEP Chapter 8: Question 7

After secretion into bile, the majority of primary bile acids are:

A. All excreted in the feces
B. Absorbed in the small intestine and undergo enterohepatic circulation
C. Normally deconjugated by bacteria in the small intestine
D. Absorbed in the conjugated form in the colon to undergo enterohepatic circulation
E. Used metabolically by bacteria in the colon

The recommended response is B.

Among healthy individuals, the enterohepatic circulation carries nutrient lipids and fat-soluble vitamins to the intestinal mucosa and transports cholesterol into bile, permitting its unchanged elimination from the body in feces. The enterohepatic circulation also transports bile acids from the liver to the small intestine and back to the liver after reabsorption on the terminal ileum (Hyperlink to Enterohepatic Circulation section). The circulating bile acid pool is primarily maintained by efficient ileal reabsorption (>95% per pool cycle). Under stable conditions, the rate of loss of bile acids is matched by an equivalent rate of hepatic synthesis. Unabsorbed bile acids pass into the colon where they are metabolized by bacteria to secondary bile acids including deoxycholic acid, Ursodeoxycholic acid, and lithocholic acid. These deconjugated bile acids are absorbed inefficiently in the colon and undergo enterohepatic circulation for hepatic reprocessing and ultimate secretion into bile. Over half of the secondary bile acids in the colon are excreted in feces. The exposure of bile acids to anaerobic bacteria (primarily in the cecum) allows for hydroxyl substituent oxidation to facilitate deconjugation. There are reports that intestinal bile acid dehydroxylation bacteria employ bile acids as metabolic substrates, but this is not the main fate of primary bile acids.

Chapter 8: Training in Inflammation and Enteric Infectious Disease

DDSEP Chapter 8: Question 11

Which one of the following is true about gallbladder polyps?

A. They are primarily found among patients with symptomatic cholelithiasis
B. The most common histologic type is inflammatory
C. The risk of malignant transformation approaches 50% at 15 years
D. Elective cholecystectomy is indicated when polyps >18 mm are detected
E. Polyps <10 mm in size require cholecystectomy in the presence of asymptomatic cholelithiasis

The recommended response is D.

Gallbladder polyps are often incidentally detected by ultrasonography when performed among asymptomatic patients for other reasons (Hyperlink to Gallbladder polyps section). Prevalence rates are estimated at 1-4% in the general population. The most common histologic type of polyps is cholesterol-based, followed by inflammatory and adenomatous types. Cholesterol polyps are usually less than 10 mm in diameter and are echogenic without acoustic shadowing. Endoscopic ultrasound (EUS) has high accuracy in distinguishing cholesterol polyps from other lesions of the gallbladder wall, including adenomyomatosis. Natural history studies suggest that a less than 10% risk for malignant transformation over 15 years is associated with gallbladder polyps. For most polyps <10 mm in diameter in the absence of symptomatic cholelithiasis, operative treatment is generally not indicated. Surveillance by abdominal ultrasonography at 3-to-6 month intervals to ensure polyp stability has been recommended. Otherwise, the treatment of choice for symptomatic cholelithiasis and polyps<10 mm in diameter is cholecystectomy. Polyps between 10-18 mm in diameter independent of cholelithiasis have a small but appreciable risk for developing into carcinoma. Thus, cholecystectomy is recommended in patients who are acceptable operative candidates. A significant risk for carcinoma does appear to be associated with polyps>18 mm and requires cholecystectomy if possible.


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DDSEP Chapter 6: Question 4

Which one of the following accurately (i.e., is true) reflects the epidemiologic features of IBD?

A. The prevalence and incidence of UC is more common in Asian Americans than in Caucasians
B. Ulcerative colitis has increased in incidence and prevalence at twice the rate of CD
C. In general, there is a higher prevalence of IBD in the southern parts of North America and Europe than in the northern parts
D. North American males are more likely to develop UC than North American Females
E. Jews who were born in North America or who migrated to Israel are at a higher risk of UC than those born in Israel, who are themselves at a higher risk than those born in Africa or Asia

The recommended response is E.

The prevalence of both UC and CD is at least 100 patients per 100,000 general population. Thus, in the United States, the total number of patients with IBD is at least 500,000 people, perhaps more. Men and women in North America are equally as likely to develop inflammatory bowel disease (either CD or UC). Inflammatory bowel disease spares no socioeconomic class. Jews of Ashkenazi descent are 2- to 3-fold more likely to develop IBD, particularly CD, than non-Jews. The country of birth of a person plays a role in the risk of developing inflammatory bowel disease. Jews who were born in North America or who migrated to Israel are at a higher risk of UC than those born in Israel, who are themselves at a higher risk than those born in Africa or Asia. It has been suggested that there is a higher prevalence of IBD in the northern parts of North America and Europe than in the southern parts. Finally, people who smoke are more likely to get CD and less likely to get UC.
