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IN BRIEF

THERAPY

Gel-based drug delivery for IBD hits the target

Researchers have developed a hydrogel that targets the inflamed gut specifically to deliver a local dose of an anti-inflammatory agent. Hydrogel microfibres were generated from ascorbyl palmitate and then loaded with the corticosteroid dexamethasone (encapsulated within). This drug-loaded gel preferentially adhered to inflamed epithelial surfaces *in vitro* and *in vivo* in two mouse models of colitis; the same adherence pattern was observed in tissue samples from patients with ulcerative colitis. Administration of the dexamethasone gel by enema to mice with colitis resulted in a substantial reduction in inflammation and less systemic drug exposure (reduced dexamethasone peak serum concentrations) than with water-soluble dexamethasone alone by enema.

Original article Zhang, S. *et al.* An inflammation-targeting hydrogel for local drug delivery in inflammatory bowel disease. *Sci. Transl. Med.* **7**, 300ra128 (2015)

NAFLD

Liver fibrosis and steatosis: a heritable trait?

Loomba *et al.* have demonstrated heritability of hepatic fibrosis and steatosis in a new cross-sectional analysis of a cohort of twins in the USA. As liver biopsy to diagnose NAFLD was not ethical in potentially healthy individuals, participants underwent noninvasive imaging (MRI and magnetic resonance elastrography) to assess for features of NAFLD and, in total, data from 60 pairs of twins (42 monozygotic, 18 dizygotic) were analysed. 21.7% of participants had NAFLD and the presence of hepatic steatosis ($r^2 = 0.070$, $P < 0.001$) and level of liver fibrosis ($r^2 = 0.48$, $P < 0.002$) correlated between monozygotic twins, but not dizygotic twins. In multivariable models adjusted for age, sex and ethnicity, the heritability of hepatic steatosis was 0.52 (based on MRI proton-density fat fraction) and of liver fibrosis (based on liver stiffness) was 0.5.

Original article Loomba, R. *et al.* Heritability of hepatic fibrosis and steatosis based on a prospective twin study. *Gastroenterology* doi:10.1053/j.gastro.2015.08.11

COELIAC DISEASE

Olmesartan and risk of intestinal malabsorption and coeliac disease

Cases of a severe, sprue-like enteropathy associated with olmesartan (an angiotensin II receptor antagonist) have been reported, but this link has been called into question. Now, findings from an observational cohort study in France have shown that olmesartan is associated with an increased risk of hospitalization for intestinal malabsorption and coeliac disease. Data from the French National Health Insurance claim database was analysed, including 4,546,680 patients and 218 events of hospitalization owing to intestinal malabsorption. This relative risk of intestinal malabsorption increases with treatment duration and long-term exposure to olmesartan. No such risk was observed for other angiotensin-receptor blockers.

Original article Carbonnel, F. *et al.* Severe intestinal malabsorption associated with olmesartan: a French nationwide observational cohort study. *Gut* doi:10.1136/gutjnl-2015-309690