Cardiovascular issues increase mortality rates in patients with advanced fibrosis

New research (Kim et al, 2013) reveals that advanced fibrosis is a significant predictor of mortality in patients with non-alcoholic fatty liver disease, largely brought about by cardiovascular causes. Non-alcoholic fatty liver disease alone was not associated with increased mortality.

To investigate the long-term impact of non-alcoholic fatty liver disease on mortality, the team used data from the National Health and Nutrition Examination Survey – a survey by the National Center for Health Statistics in conjunction with the Centers for Disease Control and Prevention – that was conducted from 1988 to 1994 with mortality follow-up through 2006. Non-alcoholic fatty liver disease was diagnosed by ultrasound and severity of fibrosis was measured by non-invasive fibrosis markers such as the non-alcoholic fatty liver disease fibrosis score (NFS).

Of the 11 154 participants, 34% had non-alcoholic fatty liver disease, with 72% having a NFS that indicated lack of significant fibrosis (NFS less than -1.455) and 3% having advanced fibrosis (NFS greater than 0.676). Non-alcoholic fatty liver disease was not associated with higher mortality risk after a median of 15 years of follow up.

'Our findings confirm that non-alcoholic fatty liver disease patients without advanced fibrosis do not have higher mortality risk,' concluded lead investigator Dr W Kim Ray, from the Mayo Clinic in Rochester, Minnesota. 'Careful monitoring of disease progression in patients with non-alcoholic fatty liver disease and fibrosis, along with interventions that reduce cardiovascular risk factors, are warranted.'

Kim D, Kim WR, Kim HJ, Therneau TM (2013) Association Between Noninvasive Fibrosis Markers and Mortality Among Adults with Non-alcoholic Fatty Liver Disease in the United States. *Hepatology* **57**(4): 1357–65

Urine test identifies babies at most risk of developing necrotizing enterocolitis

Abnormal gut bacteria in premature babies can be found days before the onset of necrotizing enterocolitis, finds new research (Morrow et al, 2013).

Necrotizing enterocolitis affects about 10% of infants born at under 29 weeks, and about a third of these will die. To find the difference between babies who have necrotizing enterocolitis and those who do not, 35 premature babies from Cincinnati Children's Hospital Medical Center were studied, 11 of which went on to develop necrotizing enterocolitis.

Dr Ardythe Morrow, Professor of Pediatrics, University of Cincinnati College of Medicine and Cincinnati Children's Hospital Medical Center, Cincinnati, USA

Babies who developed necrotizing enterocolitis had a lower diversity of gut organisms between days 4–9 after birth, and also had unusual levels of specific bacteria. Babies whose disease started early (between 7–12 days after birth) had abnormally high levels of *Firmicutes* while babies whose disease started later (19–31 days) had high levels of *Enterobacteriaceae*. All the affected babies lacked *Propionibacterium* which is usually found in healthy babies.

The bacterial levels in this study were analysed from stool samples, but bacterial levels in the gut can also be determined indirectly from urine.

Dr Ardythe Morrow, who led this study, explained: 'Our data show that onset of necrotizing enterocolitis appears to be related to having abnormally high levels of specific bacteria in the gut during the first week or two of life.'

To make sure that these findings apply to preterm infants in general, the research team is now studying hundreds of infants in multiple hospitals.

Morrow AL, Lagomarcino AJ, Schibler KR et al (2013) Early microbial and metabolomic signatures predict later onset of necrotizing enterocolitis in preterm infants. *Microbiome* **1**: 13 doi:10.1186/2049-2618-1-13

Surgery for endometriosis lowers risk of ovarian cancer

Using the National Swedish Patient Register and the National Swedish Cancer Register, a team from the Karolinska Institut in Sweden has found that women who had undergone surgical treatment for endometriosis had a lower risk of developing ovarian cancer. The researchers found that hormonal treatments for endometriosis did not lower ovarian cancer risk.

New nasal spray for the treatment of moderate to severe allergic rhinitis

Dymista, a novel nasal spray formulation of fluticasone propionate and azelastine hydrochloride, is now available on prescription to relieve symptoms of moderate to severe seasonal and perennial allergic rhinitis if monotherapy is not working.

Professional standards launched for bariatric care

The Code of Ethics and the Professional Standards Document of the British Obesity and Metabolic Surgery Society have just been published, which set new standards for bariatric specialists.