healthy volunteers; 14 patients in whom CS had been excluded or not firmly established; 16 obese patients; and 20 women in late pregnancy. NSC demonstrated superior reproducibility as shown by an intraclass correlation coefficient of 0.78. This value was only 0.47 and 0.45 for morning salivary cortisol and the morning : night-time salivary cortisol ratio, respectively. The authors measured the quality of each diagnostic test by analyzing RECEIVER OPERATING CHARACTERISTIC CURVES. They reported an NSC cut-off value of 6.1 nM to be most appropriate to distinguish between patients with CS and those in whom it could be excluded. This cut-off demonstrated a sensitivity and specificity of 100%, except in pregnant women in whom the specificity was reduced to 75% because of the physiologic rise in free cortisol. NSC, 24 h urinary free cortisol and the urinary cortisol : creatinine ratio were all superior to the widely used 1 mg DEXAMETHASONE SUPPRESSION TEST in the diagnosis of CS.

The authors conclude that NSC is an excellent screening test for CS but note that a properly defined NSC cut-off is important to achieve a high diagnostic performance.

*Marie Lofthouse*

**Original article** Viardot A *et al.* (2005) Reproducibility of nighttime salivary cortisol and its use in the diagnosis of hypercortisolism as compared to urinary free cortisol and overnight dexamethasone suppression test. *J Clin Endocrinol Metab* **90:** 5730–5736

## The mediating role of abdominal visceral fat in nonalcoholic hepatic steatosis

Recent studies have shown an association between levels of proinflammatory biomarkers and the presence of visceral obesity. As the latter has been associated with fatty liver disease, Targher *et al.* investigated whether there is a relationship between nonalcoholic hepatic steatosis (HS) and chronic inflammation. Exclusion criteria included age >50 years, alcohol intake ≥20 g/day, drug use, smoking, and a clinical history of diabetes, or cardiovascular, kidney or liver illness.

A total of 100 male volunteers with ($n = 35$) and without ($n = 65$) HS participated in the study. Targher *et al.* compared the levels of plasma biomarkers of inflammation and endothelial dysfunction in both groups. They found that these were higher in men with HS ($P \leq 0.001$). Statistical analyses showed that the level of visceral fat was the only factor that independently correlated with the presence of inflammation and endothelial dysfunction.

As this was a cross-sectional study, only a correlational link has been established; a causal relationship can only be inferred. In addition, nonalcoholic HS can only be definitively distinguished from steatohepatitis by liver biopsy, which was not performed. The possibility of a general relationship between nonalcoholic fatty liver disease and proinflammatory biomarkers cannot, therefore, be excluded.

*Katherine Sole*

**Original article** Targher G *et al.* (2005) Non-alcoholic hepatic steatosis and its relation to increased plasma biomarkers of inflammation and endothelial dysfunction in non-diabetic men. Role of visceral adipose tissue. *Diabet Med* **22:** 1354–1358

## Patients more at risk of developing type 2 diabetes after first myocardial infarction

A recent study by Pajunen *et al*. has concluded that many patients who have not been previously diagnosed with diabetes will develop diabetes within 5 years of their first myocardial infarction (MI).

Participants for this study were selected from a population-based FINAMI/FINMONICA MI register, which is a record of coronary events that occurred between 1988 and 2002 in Finnish patients aged 35–64 years. The National Social Security Institute's drug reimbursement records were used to identify the occurrence of diabetes in study participants during the follow-up period.

Overall, 2,632 patients identified from the FINAMI/FINMONICA MI records and 7,774 control subjects who did not have diabetes or a history of MI took part in this study. Patients with diabetes at the time of their first MI (16% of men and 20% of women) were excluded. The remaining participants were followed-up for 5 years. The authors found that men who suffered their first MI had more than a two-fold risk (hazard ratio = 2.3; 95% CI 1.6–3.4) of developing diabetes within the next 5 years compared with control subjects. In women, this risk increased fourfold (hazard ratio = 4.3; 95% CI 2.4–7.5).

**GLOSSARY**

**RECEIVER OPERATING CHARACTERISTIC CURVES**
A statistical validation tool used to measure how well logistic regression models have predicted a particular binary outcome. The area under the curve (AUC) equates to the probability of being able to discriminate between the two possible outcomes, with the null value represented by 0.5, and the ideal value being 1.0

**DEXAMETHASONE SUPPRESSION TEST**
Measurement of cortisol levels after administration of dexamethasone to assess response of the adrenal glands to adrenocorticotropin