

They have now investigated whether this technique might be used to detect malignant IPMNs in 64 patients suspected of having these neoplasms.

No increase in glucose uptake was detected by ^{18}F -FDG PET in 13 patients with a diagnosis of adenoma, or in 7 of 8 patients diagnosed as having borderline IPMN. A significant increase in glucose uptake was observed, however, in four of five patients with carcinoma *in situ* and in 20 of 21 patients with invasive cancers. Conventional imaging produced several false-positive results. Positive ^{18}F -FDG PET results in 10 patients influenced the decision to operate. Of 33 patients with negative ^{18}F -FDG PET results, 15 underwent limited resection and 18 patients avoided surgery, instead being monitored for future signs of malignancy.

The authors conclude that ^{18}F -FDG PET can distinguish benign IPMNs from malignant IPMNs and is more useful than conventional imaging for aiding treatment decisions concerning elderly, asymptomatic patients.

Original article Sperti C *et al.* (2007) 18-Fluorodeoxyglucose positron emission tomography enhances computed tomography diagnosis of malignant intraductal papillary mucinous neoplasms of the pancreas. *Ann Surg* 246: 932–939

Sleep deprivation increases perceived pain in patients with GERD

Approximately 47–57% of patients with GERD, compared with about 25% of the general population, report night-time awakening caused by heartburn episodes, resulting in sleep deprivation or fragmentation. Furthermore, studies of the relationship between sleep and pain tolerance have suggested that sleep deprivation can decrease pain thresholds. Schey and colleagues examined whether the sleep disturbances caused by GERD symptoms might, in turn, worsen the perceived pain experienced during acid reflux events.

This prospective, randomized, controlled crossover study included 10 patients with grade B–D erosive esophagitis and 10 healthy controls. Participants underwent two sleep schedules, separated by a 1-week washout period, in a randomly allocated order: adequate sleep (≥ 7 hours' sleep for at least 3 consecutive days before evaluation) or sleep deprivation (≤ 3 hours' sleep on the night before evaluation).

Actigraphy was used to verify compliance with the sleep schedules, and a modified acid perfusion test was used to evaluate the lag time to the onset of heartburn sensation, the sensory intensity of the event (scale 0–20), and the acid perfusion sensitivity score.

In the patients with GERD, sleep deprivation was associated with significantly decreased lag times to symptom report ($P=0.02$) and significantly increased intensity scores ($P=0.02$) and acid perfusion sensitivity scores ($P=0.02$). Unexpectedly, none of the parameters differed significantly between adequate and deprived sleep schedules in the control group.

The authors conclude that sleep deprivation has hyperalgesic effects in patients who experience GERD symptoms, thus demonstrating the bidirectional relationship between GERD symptoms and disturbed sleep.

Original article Schey R *et al.* (2007) Sleep deprivation is hyperalgesic in patients with gastroesophageal reflux disease. *Gastroenterology* 133: 1787–1795

Mouth-to-anus patency capsule for the diagnosis of small intestinal strictures

Video capsule endoscopy (VCE) is a noninvasive imaging technique for visualization of the small intestine. The presence of an undiagnosed intestinal stricture, however, poses the risk of capsule impaction, which requires surgical removal. Banerjee and colleagues tested the safety and efficacy of a painless, noninvasive and radiation-free patency capsule for diagnosing intestinal strictures.

The patency capsule (Given Imaging, Yoqnam, Israel) consists of a 26×11 mm casing containing a radiofrequency identification (RFID) tag to allow tracking of the device through the gastrointestinal tract. The coating of the capsule is designed to disintegrate after 80–100 h; the RFID tag and casing fragments are then excreted in the stools, denoting the presence of a stricture. Intestinal patency is indicated by intact capsule excretion, and confirmed by VCE.

Twenty-six patients (tuberculosis [$n=16$], Crohn's disease [$n=8$], postoperative stricture [$n=1$], malignant stricture [$n=1$]) with a confirmed or suspected small intestinal stricture swallowed a patency capsule after an overnight fast. Eight patients excreted intact