Another negative study for Alzheimer's disease

- **The Issue:** Researchers believe non-steroidal anti-inflammatory drugs (NSAIDs) may be linked to the slow progression of established Alzheimer's disease (AD). NSAIDs have been associated with the reduced risk for AD in observational studies, but tests have shown that neither rofecoxib nor naproxen affect cognitive decline in patients who already have mild to moderate AD.
- **The Study:** A recent study was conducted dealing with the same issues. Six hundred ninety two patients (age ≥ 50) with early AD participated in the multicentre, double-blind, randomized U.S. study. Some received a daily dose of rofecoxib, 25 mg, and others received placebo. Five hundred twenty-one patients completed the study.
- **The Results:** At the end of one year, there was no significant impact on cognitive decline in patients with AD. Results were based on the standardized AD assessment scale, as well as interviews with the patients and caregivers. Although it is possible NSAIDs do reduce the risk of AD, this is the second study that shows NSAIDs do not affect AD when given after diagnosis.

Reines SA, Block GA, Morris JC, et al: No effect on Alzheimer's disease in a one-year, randomized, blinded, controlled study. Neurology 2004; 62(1):66-71.

Which treatment is better for children with AOM?

- **The Issue:** The types of treatment options for children with tympanostomy tubes who develop acute otitis media (AOM) include oral and topical antibiotics alone, or in combination with corticosteroids. Which is superior: topical ciprofloxacin/dexamethasone otic suspension or ofloxacin otic solution?
- **The Study:** Approximately 600 children, at an average age of 2.5 years, who had patent tympanostomy tubes and AOM with otorrhea, participated in a multicentre, observer-masked, randomized trial. One group of children received topical ciprofloxacin/dexamethasone otic suspension (four drops twice daily for seven days), while the other received ofloxacin otic solution (five drops twice daily for ten days).
- **The Results:** Although both treatments were effective, more children who received ciprofloxacin/dexamethasone otic suspension were completely free of otorrhea, or had experienced a reduction in otorrhea volume in days three, 11, and 18. On day 11, for example, cure rates were at 84% with ciprofloxacin/dexamethasone otic suspension, as opposed to 63% with the ofloxacin otic solution.

Roland PS, Kreisler LS, Reese B, et al: Topical ciprofloxacin/dexamethasone otic suspension is superior to ofloxacin otic solution in the treatment of children with acute otitis media with otorrhea through tympanostomy tubes. Pediatrics 2004; 113(1 pt 1):e40-6.

Early or delayed surgery for acute cholecystitis?

- **The Issue:** Researchers contemplate whether it is better to operate on acute cholecystitis at an early stage after diagnosis (*i.e.*, within a few days), or to operate after the gallbladder has had a chance to "cool down" (*i.e.*, at least six weeks after diagnosis).
- **The Study:** Twelve randomized trials were included in a study in which researchers compared early and delayed cholecystectomy. Three laparoscopic trials (246 patients) were analyzed separately from nine trials of open cholecystectomy (1,009 patients). Patients with complications, like pancreatitis, jaundice, and peritonitis, were not included.
- **The Results:** About 13% of randomized patients who underwent delayed surgery had persistent or recurrent symptoms while waiting for elective surgery, and underwent urgent surgery. The early group spent less time in the hospital. In the open and laparoscopic trials, the rates of mortality, morbidity, retained common duct stones, and common bile duct injury were similar. According to the analysis, there is no reason to delay surgery in patients with uncomplicated cholecystitis. Early cholecystitis has an economic advantage, as patients spend fewer days in the hospital.

Papi C, D'Ambrosio L, Capurso L: Timing of cholecystectomy for acute calculous cholescystitis: A meta-analysis. Am J Gastroenterol 2004; 99(1):147-55.

Sleep's effect on insight and creativity

- **The Issue:** Past research has shown that a good night's sleep strengthens the acquisition of skills through practice, and restructures new memory representations. A new study from Germany suggests that proper sleep also improves insight and creative thinking.
- **The Study:** In an experiment, German researchers had subjects transform strings of digits into new strings by following two explicit rules for eight hours. The more they did the task, the more rapidly they could perform. Repeated performance exposed subjects to a hidden rule, which, if recognized, made the task much simpler. After eight hours, the subjects were either kept awake (during the nighttime or the daytime) or were left to sleep. Later, all the subjects were asked to perform the task again.
- **The Results:** Sixty per cent of the subjects who had enough sleep were able to recognize the hidden rule, and improved their performance significantly. Only 22% of the subjects who were kept awake could repeat the task. These results support the popular belief that a good night's sleep is beneficial. The analysis indicates that proper sleep improves cognitive processes, which lead to insightful behaviour. Dx

Maquet P, Ruby P: Insight and the sleep committee. Nature 2004; 427(6972):304-5.
Wagner U, Gais S, Haider H, et al: Sleep inspires insight. Nature 2004; 427(6972):352-5.