

T2D BY ANY OTHER NAME...

■ **The label ‘Type 2 diabetes’ may be dangerously misleading and could account for sub-optimal treatment for patients, according to a leading diabetologist.**

In an opinion piece published in the *Lancet*, Professor Edwin Gale, of Southmead Hospital, Bristol, argues that applying the term ‘Type 2 diabetes’ to the complex and varied set of symptoms experienced by people with the condition is what logicians call a “category error”, when a problem is assigned to a category inappropriate to its solution.

“In practice, when somebody like myself talks about Type 2 diabetes, I’m saying ‘a form of diabetes for which I can find no other cause’. In other words, it’s a diagnosis of exclusion,” Professor Gale writes. because the symptoms referred to by the term “Type 2 diabetes” have such widely varying causes, mechanisms, and treatments, he argues, the term is misleading both researchers and patients.

“Treating Type 2 diabetes as a single disease has caused the work of generations of young investigators to be wasted in pursuit of indefinable entities,” he adds, “reinforced by the introduction of one-size-fits-all guidelines for disease management.”

As an interim solution, he proposes replacing “Type 2 diabetes” with the term “idiopathic hyperglycaemia”, which he says will encourage clinicians to stop thinking about the condition as a disease in its own right, but rather as an outcome of many interacting processes.

<http://www.diabetes.org.uk/Documents/Reports/Diabetes-in-the-UK-2012.pdf>

BETTER BEHAVIOUR WHEN THE SUN SHINES?

■ **A team of scientists in the Netherlands are suggesting that ADHD may be more prevalent where the sun makes fewer appearances.**

Worldwide prevalence of ADHD ranges from about 5% to 7% but varies greatly by region. A group of researchers at Utrecht University noticed that a cursory examination of prevalence rates by region and amount of sunlight across the USA revealed an interesting pattern, with lower rates appearing in sunnier climes.

In order to establish whether a true relationship existed, the team, led by

Dr Martijn Arns, collected and analysed multiple data-sets from the United States and nine other countries. Even after controlling for factors known to be associated with ADHD, both US and non-US regions with high sunlight intensity showed a lower prevalence of ADHD, suggesting that high sunlight intensity may exert a “protective” effect for the condition. The findings, reported in the journal *Biological Psychiatry*, do have significant implications, explains Dr Arns.

“These results could point the way to prevention of a sub-group of ADHD, by increasing the exposure to natural light during the day in countries and states with low solar intensity – for example, skylight systems in classrooms and scheduling playtime in line with the biological clock could be explored further.”

REFERENCE

Arns M, et al. *Biological Psychiatry*, 2013; 74:8

DO ED DRUGS ERECT BARRIERS TO COLON CANCER?

■ **Men being treated for erectile dysfunction (ED) may unwittingly be enjoying a fortunate side-effect that appears to be protective against colon cancer. The discovery was made by a team of researchers at Georgia Regents University Cancer Center, who are now studying a class effect of the three most commonly used drugs for ED.**

PDE5 inhibitors, which include sildenafil (Viagra) and vardenafil (Levitra), appear to protect the lining of the colon from inflammation and other damage by protecting the integrity of the colon’s natural barrier and reducing excessive risk of cell proliferation.

“We’ve found a way of activating a tumor suppressive pathway in the gut using drugs already in use for erectile dysfunction,” said lead investigator Dr Darren Browning.

Browning and his team discovered that the enzyme type 2 protein kinase G, or PKG2, has an important role in protecting the cells that form a barrier to block cell proliferation in the colon. In a quest for ways to increase PKG activation in the colon, the researchers became interested in the erectile dysfunction drugs because they are known to inhibit

phosphodiesterase (PDE5), an enzyme which indirectly blocks the activity of the protective PKG protein.

In the penis, the ED drugs act in the same way, enhancing the activation of PKG, which relaxes the smooth, circular muscles around blood vessels so they can fill with blood.

The team has received a \$1.8 million National Cancer Institute grant to further explore how and how well the drugs work to prevent colon cancer.

“If the drugs continue to work as our studies to date have indicated, the next stage is clinical trials because these drugs are in the clinic already,” Browning said.

STUDY HIGHLIGHTS GENDER DIFFERENCES IN MEDICAL PRACTICE

■ **Research at the University of Montreal seems to suggest that female doctors are more diligent while their male counterparts are more productive.**

The investigators reached this conclusion by studying the billing information of over 870 Quebec practitioners (half of whom were women) relating to their procedures with elderly diabetic patients. The women scored significantly higher in terms of compliance with practice guidelines and were more likely than men to prescribe recommended medications and to plan required examinations.

But in terms of productivity, male doctors scored higher than their female counterparts. On average, the men reported nearly 1,000 more procedures per year compared to women.

“People assume that women doctors spend more time with their patients, but it is difficult to observe in a scientific study. This study does just that,” says lead author Valérie Martel.

However, the investigators point out that these differences were more prevalent among the older “subjects”.

“The differences between male and female practices have diminished over time... more and more men are taking time with their patients at the expense of productivity, and more and more women tend to increase their number of procedures,” they write.

www.sciencedirect.com/science/article/pii/S039876201300343X