I read with interest the article by Chang et al. [1] in which
the authors adopt a systematic approach (including taking
into account binary clinical conditions such as the presence
of hypertriglyceridemia, alcohol and / or tobacco use, gall-
stone, obesity and bilio-pancreatic cancers, estimating dose
response effects and performing sensitivity analyses) to
tease out the relationship of various anti-diabetic drugs and
the risk of Acute pancreatitis (AP). In the end, they provide
compelling evidence that sulfonylureas carry a more signifi-
cant risk of causing AP compared to metformin which in turn
carry a more significant risk that dipeptidyl peptidase-4.

The study [1] reaffirms the role played by drugs in the
causation of AP. It is well appreciated that diabetic patients
are at an increased risk of developing AP and are more likely
to suffer the severe form of the disease [2]. Hyperglycaemia,
coupled with the factors influencing insulin resistance (tu-
mour necrosis-α, NFκB, amylin) which cause an increase in
reactive oxygen species generation in acinar cells, have been
hypothesized to play a role in the pathophysiology of AP in
patient with diabetes mellitus [3].

While literature is abound with case reports, case series
and even reviews on drug-induced AP there continue to be
doubts raised as to the extent to which drugs actually play in
causing an episode of AP [4]. Such arguments are very valid
as reports on drug-induced AP may result from an incom-
plete aetiological work-up. The more concerning off shoot of
presumptuously arriving at such a diagnosis, though, is the
risk that in the haste to label a patient with drug-induced
AP, a more sinister cause of AP (eg. a tumour) may be over-

Nevertheless, we must acknowledge that AP is a universal
health problem [5] contributing majorly to health care ex-
penditure [6]. What is more important is that AP often runs
an unpredictable course once the wheels of the disease have
been set into motion and, to this day, the treatment is only
supportive in the absence of a specific therapy [7]. And while
at the present time we may be unable to explain how or why
some patients react differently to their prescription medi-
cations and develop an episode of AP while a million other
patients on the same drug remain unaffected, clinicians must
remember that drug-induced AP does exist [8] and possibly
represents one of the few instances in AP where an astute
clinician can make a world of difference to the patient’s life.

Patients with drug-induced AP generally have a mild disease
in the initial presentation [8]. Thus, all it takes is for the cli-
nician, be it the general practitioner, the endocrinologist, the
emergency room doctor or the gastroenterologist to recog-
nise the possibility of one of the prescription medications
being a potential cause for the episode of AP (after ruling out
every other cause [10]), and to effect a simple switch in
therapy to a drug with less potential for causing AP [9]. Stud-
ies such as the one Chang et al. [1] should be encouraged as
they present clinicians with exactly this information. There
are very few instances in AP wherein the clinician may have
the luxury for secondary prevention of the disease. Perform-
ing a cholecystectomy following an episode of mild biliary
AP is one; whilst recognising and appropriately managing a
patient with drug-induced AP represents the other.
Commentary on the manuscript: Chang HY, Hsieh CF, Singh S, Tang W, Chiang YT, Huang WF. Anti-diabetic therapies and the risk of acute pancreatitis: a nationwide retrospective cohort study from Taiwan. Pharmacoepidemiol Drug Saf. 2015

References


