Reducing the effect of proton pump inhibitors augmenting gastrointestinal sestamibi uptake

We thank Norouzi et al[1] for a well-considered study of the topic of increased gastrointestinal sestamibi uptake due to proton pump inhibitor (PPI) medications. It is indeed a problem which confounds Nuclear Medicine specialists every day. It is important to overcome this as much as possible—and attenuation correction goes a long way toward this objective. Thus, Myocardial Perfusion Imaging (MPI) remains an integral part of the cardiac investigation process, especially for those with intermediate cardiovascular risk.[2]

By contrast to Norouzi et al[1] who withheld PPIs, we thought about the counteracting effects of an additional aspirin to MPI patients.[3] This was based on a hypothesized mechanism by which PPI-associated hypergastrinemia induces expression of cyclooxygenase 2 in the gastric mucosa promoting local synthesis of prostaglandins leading to hyperplasia and increased blood flow and thus increase MIBI uptake. We showed that clinically significant gastric wall uptake was more likely in those taking a PPI without aspirin (51%) compared to those taking neither medication at baseline (13%). We would like to study this further, prospectively.

It seems the latter would be much smoother from a medical/administrative point of view. Patients often have difficulty identifying which medication to stop, especially if all their assortments are pre-packaged by the pharmacy in a weekly supply/container. ‘‘Do you mean the little white one, doctor?’’ is the inevitable refrain. We cringe at those words. If this step can be bypassed, it would seem much more palatable.

Another population that would benefit are hospital inpatients that require the test on the same day or the next. The period required to withhold the PPI might be neither possible nor practical.

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