Endocrine similes in public speech

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Introduction

Endocrinology is a vast subject, full of uncharted dimensions and unexpected vistas. A relatively young specialty, endocrinology is at centre stage of scientific attention today. The ever-increasing number of Nobel prizes awarded to endocrine discoveries (1), approvals given to endocrine drugs (2), and grants awarded for endocrine research bear testimony to this. In parallel, endocrinology has made great inroads in to popular culture, with hormones becoming an integral part of modern communication and social media.

Endocrinology is a field which can be exapted (3), or utilized, for multiple purposes. Endocrine terminology lends itself to both scientific as well as colloquial use. Though the endocrine profession is probably incapable of regulating or ''policing'' the use of endocrine words as nouns and adjectives, it should take the onus of educating the public about appropriate meanings and connotations of various hormones.

Quality of speech

Public speech, for example, can be described in terms of endocrine similes. We are all familiar with *melatoninergic speakers* who put us to sleep. While other medical specialties may prefer to use the descriptive 'somniferous' or sedative', melatoninergic provides a more vivid picture of the effect a boring speaker can have on an unsuspecting audience.

Just as endocrinology is a multifaceted subject, there are multiple ways of describing unappetizing lectures. A lecture delivered at *hypothalamic* level, for example, would not be understood by the intended audience. A speech full of flattery and sycophancy could be called a *glucotoxic* delivery, while one with unnecessary padding may be termed lipotoxic. An overloaded talk may deserve the adjective of *maladaptive anabolism*, while an extremely long speech which causes starvation-induced weight loss can be called *catabolic*, *cachexic*, or a *verbal bariatric surgery*.

Duration of speech

The ideal length of a public discourse varies from speaker to speaker, topic to topic, and listener to listener. An ideal oration, however, can be likened to *insulin*: it should have a *short half life* (intravenous insulin t ½: 3-5 minutes) but should *pack a powerful punch*. (Insulin: the most potent anabolic hormone in the body). A similar analogy can be drawn with incretins: an audience-friendly talk should be short like *GLP-1*'s half- life, but long enough to have an impact, like GLP-1 receptor agonists (GLP1RAs). Another comparison would be with *insulin analogues*: the ideal address should have the length of an ultra-fast acting as part, and the retention quality of ultra-long acting degludec.

Impact of speech

Metabolic memory or *glycemic legacy* is a phrase which deserves a place in the endocrine lexicon of rhetoric: the best oratory is one that is remembered long after it is delivered, and which leaves a legacy for future generations. While some talks have an impact as short as the half-life (in minutes) or amino-acid chain length of oxytocin [n=3 and 9, respectively], others last as long as the duration of action of zoledronic acid (1 year).

Quality of speaker

Just as endocrinology moves from a glucocentric to a comprehensive approach in diabetes management, the endocrine description of rhetoric includes terminology beyond that of diabetes pathophysiology and pharmacotherapy.

Some authors are known for the instant connect they build with the audience: perhaps they can be described as *oxytocin-rich* or *oxytocinergic* speakers. They are able to create a positive feedback with the audience, in contrast to the negative feedback pathways normally associated with endocrine physiology. It must be noted, here, that oxytocin is perhaps the only hormone which is able to kick-start a positive feedback loop with uterine contractions.

Yet other orators bring a relaxed old world charm to their public interactions. Speaking in an unhurried manner, perhaps estrogen dominates their hormonal landscape. Whether a distinguished male speaker would appreciate

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being identified as an *estrogenic* orator is open to debate, though.

The other glands, too, add hormonal spice to the adjectives that define public speech. An *adrenergic* speaker is one who exudes energy in his verbal and non verbal language, while an *Addisonian* orator would imply the opposite. The term *dopaminergic* can also be utilized to present an educated, intelligent, and energetic speaker who needs no rest: dopamine is the predominant catecholamine in the brain.

The phrase '*thyrotoxic speaker*' world conjure a mental picture of a fast-speaking orator, with excessive hand, ocular, and facial gestures, while a *hypothyroid* orator would make use of long, unnecessary pauses. A ''*speech full of testosterone*'' or an *androgenic* delivery would quality an oration marked by bravado and ''machismo'' talk, while a *hypogonadal* debate would suggest a weak-kneed response. The descriptor '*hypercalcemic speaker*' may be interpreted by hard core endocrinologists to mean a ''constipated'' speaker full of attitude and airs.

The audience

Endocrine similes are not limited to speaking; they can be used to paint word-pictures of the audience as well. A *hypoglycemic* audience would be one which was disinterested in a programme, looking forward to the cocktail or dinner instead. An audience full of *glucagon* may imply one which has no appetite for learning. The paradox of hypoglycemia and *hyperglucagonemia* describing a similar set of listeners will not be lost upon the endocrinology reader of this article. *NASH* (*non-academic silent honchos*) is an acronym that can be used to describe a disinterested audience as well.

It needs mention here that *melatoninergic* effects, including yawning and power-naps, can be contagious. This conjures the para-endocrine concept of *pheromones*, or *external neurotransmitters*, which mediate inter-individual communication.

Paracrine effects, such as one member of the audience taking a neighbor out of the hall, are all too frequent today. These are an extension of the *apoptosis* (*vacant chairs*) seen in empty auditoria. Of course, the endo-literate delegate will always have a suitable excuse – he may blame his *dihydrotestosterone* for causing prostatomegaly, while she may invoke a high *progesterone* phase to explain her disinterest. Neuro-endocrinologically minded colleagues may wish to assess *vasopressin* (*antidiuretic hormone*) secretion before sitting to attend long sessions.

A *Grave audience* may not necessarily be grave and serious: a talkative group will leave the impression of a collective *Graves' disease*, with the modern triad of silent eye gestures, conversations, and mobile texting, during an unsuspecting speaker's talk.

Conclusion

Endocrinology has contributed significantly to the advancement of basic and clinical science. These in turn, have helped enhance our understanding and management of hormonal disease. This mutually beneficial bidirectional relationship helps spawn original ideas, which in turn facilitate discovery of newer innovations that expand the borders of science. Similarly, the use of endocrine similes in speech in scientifically correct and literally apt manner should help both endocrinology and communication grow in tandem with each other.

References

1. Kalra S, Unnikrishnan AG, Jacob J. Endocrinology @ the nobels. *Indian J Endocr Metab* 2012; **16**, Suppl S2: 138-9.
2. FDA Approved Drugs for Endocrinology. Available at: https://www.centerwatch.com/drug-information/fda-approved-drugs/therapeutic-area/4/endocrinology. Accessed on 28 January 2015.
3. Kalra S, Bantwal G, John M. The exaptation of endocrine pharmacology. *Indian J Endocr Metab* 2012; **16**: 329-30.