Sixtieth Anniversary of Angiotensin

Edward D. Frohlich

The journal, very recently, paid tribute to the 100th anniversary of the discovery of renin by Tigerstedt and Bergman.1,2 Forty years later, 2 independent investigative groups in Buenos Aires and Indianapolis, headed by Drs Eduardo Braun-Menéndez and Irvine H. Page, respectively, identified the active polypeptide angiotensin that explained the pressor effect of renal hypertension.3–6 Thus, using relatively unsophisticated methods (in terms of present day technology), the precise peptide that produced experimental renal hypertension was identified.

In the accompanying online-only historical commentary, Drs Nidia Basso and Norberto Terragno provide a chronological history of the discovery by the Braun-Menéndez team from the University of Buenos Aires.7 Their account jibes well with an interview of Irvine Page that I taped just prior to his death for the National Library of Medicine under the aegis of a grant-in-aid by the Alpha Omega Alpha medical honor society.8 It was of interest that in the interview, Page indicated that both he and Braun-Menéndez were concerned about the dual terminology of their single discovery. Page then pointed out to me that while enjoying martinis with Braun-Menéndez at the University of Michigan meeting (identified by Drs Basso and Terragno), they arrived at a compromise nomenclature for angiotonin and hypertensin angiotensin. Their very brief paper, published in Science, is evidence of their joint unanimity.9

The 60th anniversary of the discovery of angiotensin by Braun-Menéndez and Page (and their teams) was recently celebrated in Buenos Aires at the 180th anniversary of the University of Buenos Aires. I am quite certain that neither of these outstanding clinical scientists would have imagined the far-reaching scientific findings learned over the years from their mutual discovery of angiotensin. Not only has their peptide explained the underlying mechanism of renal hypertension (and, perhaps, other types of clinical hypertension) that they had investigated, but it has provided clearer understanding of other diseases and their complications. Thus, much insight has been gained from the synthesis of pharmacological entities that antagonize the biosynthesis and physiological responses to the endogenous generation of angiotensin II. Much knowledge continues to be generated by the continued studies of this peptide: its role in aldosterone synthesis and release from adrenal medulla; the identification of local tissue renin-angiotensin systems; the role of angiotensin in cardiac failure, end-stage renal disease, and endothelial dysfunction; its potential roles that are under current investigation concerning angiogenesis, atherogenesis, inflammation, and brain chemistry; and the yet-to-be-envisioned pathophysiological concepts and therapy for human disease and disability. But, at present, let us all celebrate the joint discovery of this amazing peptide—happy birthday angiotensin and the University of Buenos Aires!

References
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Hypertension. 2001;38:1245

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