Articles in ‘Endocrinology and Metabolism’ in 2014

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INTRODUCTION

In 2014, the journal published many excellent articles in the fields of endocrinology and metabolism. I believe that these works increased scientific knowledge and the standards of medical care. Updated information is freely available to readers. I would like to briefly introduce a number of excellent articles published in 2014 in ‘Endocrinology and Metabolism’ (Endocrinol Metab).

ARTICLES ON THYROID DISEASE

Prof. YJ Park, deputy editor of ‘Endocrinology and Metabolism,’ wrote a review on the prevalence of, and risk factors for, subclinical thyroid disease in Korea; this analysis was particularly clear [1]. Several review articles on thyroid cancer appeared in the third issue of 2014: “Molecular pathogenesis and targeted therapies in well-differentiated thyroid carcinoma”; “Current status and future perspectives in differentiated thyroid cancer”; “Can robotic thyroidectomy be performed safely in thyroid carcinoma patients?”; and “Radioiodine therapy in differentiated thyroid cancer: the first targeted therapy in oncology” [2-5]. Prof. W Teng reviewed nationwide Chinese data and reported that excess iodine can trigger hypothyroidism and autoimmune thyroiditis, especially in susceptible populations with recurring thyroid disease, the elderly, fetuses, and neonates [6].

Prof. EH Jeon and Prof. ED Jung published an original article entitled “Diagnostic whole-body scan may not be necessary for intermediate-risk patients with differentiated thyroid cancer after low-dose (30 mCi) radioactive iodide ablation,” involving a study performed on 438 subjects with differentiated thyroid cancer. They suggested that diagnostic I-131 whole-body scanning after radioactive iodide ablation may not be necessary in intermediate-risk patients with differentiated thyroid cancer [7]. Prof. EJ Lee et al. described the biochemical factors prognostic of subclinical hypothyroidism in newly diagnosed patients [8]. Prof. KR Hyun, Prof. S Kang, and Prof. S Lee analyzed the social costs of thyroid disease in Korea over the last 10 years in their article entitled “Cost-of-illness trends associated with thyroid disease in Korea” [9]. Prof. JI Son et al. analyzed thyroid fine-needle aspiration specimens from 469 patients and published a paper entitled “Insufficient experience in thyroid fine-needle aspiration leads to misdiagnosis of thyroid cancer” [10]. Prof. M Sanjari et al. completed a study involving school-aged children in Iran, and found that cobalt deficiency is one reason why goiter persists in that country [11]. Other original articles on thyroid disease also appeared in 2014 [12-16].

ARTICLES ON DIABETES AND OBESITY

In a review article, Prof. S Lim elegantly showed that ectopic fat accumulation by visceral organs is associated with insulin resistance [17]. He received the Namgok Award for his work, and wrote an update of the effects of ectopic fat accumulation...
on cardiometabolic and renal disorders. Prof. I Kojima, editor-in-chief of 'Endocrine Journal,' reviewed signal transduction systems activated by sugar molecules in an extragustatory tissue, pancreatic β-cells [18]. Prof. KG Park reviewed transcriptional regulation of fibroblast growth factor 21 (FGF21) expression [19]. Prof. IK Lyoo discussed the characteristics of the cognitive impairment observed in type 2 diabetic patients and summarized the outcomes of recent neuroimaging studies of human diabetes-associated brain deficits [20]. Adipose tissue plays a key role in energy storage. Prof. JB Kim described the microRNA-mediated regulatory mechanisms of adipocyte differentiation [21]. The fourth issue of 2014 was a special issue on obesity. Five review articles presented recent treatment guidelines and new findings in the field [22-26]. Prof. EJ Rhee analyzed data collected during a health-screening program, and found that renal function was negatively correlated with the extent of coronary artery calcification [27]. Very topical articles on metabolic syndrome, fatty liver, and diabetes prediction appeared in other issues of 2014 [28-31].

ARTICLES ON BONE, PITUITARY, AND OTHER ENDOCRINE DISEASES

Prof. S Fukumoto of the University of Tokyo hospital reviewed the methods by which FGF23-producing tumors may be diagnosed in patients with tumor-induced osteomalacia [32]. Prof. JT Lee found, in a review, that F-18 fluorodeoxyglucose positron emission tomography/computed tomography (CT) was highly accurate (compared to CT or magnetic resonance imaging) when used for the differential diagnosis of an adrenal mass, especially when combined with the other two imaging modalities [33]. New radiological methods are under development, and relevant studies were cited in the review. Prof. MJ Lee et al. published a study entitled “Testosterone replacement and bone mineral density in male pituitary tumor patients,” which showed that testosterone replacement therapy improved the bone mineral density of postoperative hypogonadal patients with pituitary tumors [34]. Another article featuring genetic analysis presented an extremely rare case of intrasellar cavernous hemangioma [35]. A paper entitled “Genetic and epigenetic analysis in Korean patients with multiple endocrine neoplasia type 1,” showed that genotype and phenotype are uniquely associated in Korean multiple endocrine neoplasia type 1 patients [36]. Another study established dopamine agonists as the first-line treatment for prolactinoma, and reported that cabergoline triggered reductions in tumor volume, and normalization of prolactin levels, evident 3 months after treatment commenced. These responses were also predictive of later outcomes, as reported in an original article entitled “Early prediction of long-term response to cabergoline in patients with macroprolactinomas” [37]. An article entitled “Testosterone deficiency associated with poor glycemic control in Korean male diabetics” explored the relationship between testosterone deficiency and the levels of diabetes markers [38]. Other original articles on pituitary, adrenal, parathyroid, and pancreatic diseases appeared in 2014 issues [39-43].

BASIC RESEARCH ARTICLES

A study entitled “Curcumin enhances docetaxel-induced apoptosis of 8505C anaplastic thyroid carcinoma cells” reported that curcumin enhanced the antitumor activity of docetaxel used to treat anaplastic thyroid cancer, suggesting that curcumin may be an attractive candidate drug [44]. An article entitled “Correlation between expression of glucose transporters in granulosa cells and oocyte quality in women with polycystic ovary syndrome” defined the expression patterns of all 13 members of the GLUT family in human granulosa cells and reported that insulin sensitivity regulated GLUT expression in the granulosa cells of polycystic ovary syndrome patients [45]. An experimental study entitled “Functional role of Parkin against oxidative stress in neural cells” explored the role of Parkin in protecting against oxidative stress in neuronal cells that had differentiated from Parkin-knockout embryonic stem cells [46]. In another experimental work entitled “Short-term caloric restriction does not reduce bone mineral density in rats with early type 2 diabetes,” bone mineral density was maintained in Otsuka Long-Evans Tokushima Fatty rats after short-term caloric restriction induced weight loss [47]. An article entitled “Insulin phosphorylates tyrosine residue 464 of Tub and translocate Tubby into the nucleus in HIRcB cells” reported that Tub contains a tyrosine-phosphorylation site that is modified in response to insulin and insulin-like growth factor [48]. An experimental study involving rats separated from their mothers as neonates suggested that prolonged access to highly palatable food during adolescence and youth partly improved anxiety-related symptoms; the hypotalamic-pituitary-adrenal axis was more functional than in controls [49]. An article entitled “A novel cytosolic isoform of mitochondrial trans-2-Enoyl-CoA reductase enhances peroxisome proliferator-activated receptor α activity” appeared in the third issue of 2014 [50]. Prof. MJ Moon reported that a novel glucagon-like peptide-1
(GLP-1) analog, Xenopus GLP-E4, improved β-cell function in an article entitled “A novel long-acting glucagon-like peptide-1 agonist with improved efficacy in insulin secretion and β-cell growth” [51]. Several updates on research work in neurons and brain vessels have also been published [52-58]. An experimental study involving skeletal muscle cells revealed that Vav3 plays a critical role in glucose regulation under high-glucose conditions [59]. Other excellent articles on basic endocrine research have also been published [60-62]. Finally, interesting case reports on patients with various endocrine diseases appeared in 2014 in ‘Endocrinology and Metabolism’ [63-72].

CONCLUSIONS

In this editorial, I would like to express my deep appreciation to all those who have devoted time and effort to our journal. I deeply thank all readers, authors, editors, and board members of the Korean Endocrine Society. Their support and continued efforts made it possible to publish many excellent articles. I hope that readers will continue to support ‘Endocrinology and Metabolism’ in 2015.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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