

## REFERENCE

- Bhagat CI: Interference in radioimmunoassay of total serum thyroxine and free thyroxine due to thyroxine -binding auto antibodies.

  Clinical Chemistry. 1983; 29; 1324-25
- Borst Gc, Eil C, Burman KD. Euthyroid hyperthyroxenemia; a review.

  Annals of Int. Med. 1983;98:366-78
- Britton KE, Quinn V, Brown BL, et al. A strategy for thyroid function tests. British Medical Journal. 1975;3:350-52
- Cupples LA, D´ Agostino RB. Some risk factors. related to the annual incidence of cardiovascular disease and death using pooled biennial measurements: Framingham heart study, 30 year follow up. NIH publication 1987: section 34.
- Diagnostic Products Corporation.Coat-A-Count Free T3. 1988. <u>Package</u> insert.
- \_\_\_\_\_ Total T4 double antibody. 1988. Package insert.
- T3 Uptake. 1988. Package insert.
- Dillman WH: Biochemical basis of thyroid hormone action action in the heart. Am J Med. 1990; 88:626-30
- Ekins RP, ed. Free thyroid hormones. Excerpta Medica. 1979. Amsterdam.
- Eichna LW: Circulatory congestion and heart failure. Circulation 1961;22: 883-886.

- Feldman T, Borow KM, Sarne D.et al: Myocardial mechanics in hyperthyroidism. <u>J Am Coll Cardiol</u> 1986;7:967-974.
- Felt V, Cenkova V, Nedvidkova J. Change of triiodothyronine and thyroxine in patients with thyrocardiac disease and their relationship to systolic time intervals. Endocrinol. 1982;80(3):325-31
- Fleiscler N, Fein PS, Sonnenblick EH: The heart and endocrine diseases in Hurst JW et al (eds.): The Heart 7th ed., New York, McGraw-Hill, 1990 elap 77, pp 1497- 1513
- Friedman MJ, Okada RD, Ewy GA, et al. Left ventricular systolic and diastolic function in hyperthyroidism. Am Heart J 1982, 104(6): 1303-08
- Germanides J, Souvatroglow A, Sideris) et al. Systolic time intervals in atrial fibrillation with and without hyperthyroidism. Acta Endocrinol. 1984; 265: 45-47.
- Gick GG, Ismail-Beigi F, Edelman 18: Thyroidal regulation of rat renal and hepatic Na, K-ATPase. J Biol Chem 1988;263: 16610-18.
- Griebenow R, Meier C, Saborowski F. Measurement of systolic time intervals by echocardiographic and conventional methods (author's translation); Z. Kardiol 1981; 70(9):687-92.
- Hirschfeld S, Meyer R, Schwartz DC, et al: Measurement of right and left ventricular systolic time intervals by echocardiography.

  Circulation 1975; 51: 304-09.

- Jensen TL. Blood flow velocity and systolic time intervals measured by pulsed doppler ultrasound. <u>Cardiovasc. Res.</u> 1987; 21(8):1582-86
- doppler. Acta Anaesth Scand 1981; 25 : 461-62
- Jerric M, Banovac K, Baric LJ, et al. Estimation of systolic time intervals and timing of arterial rounds in hypothyrodism during antithyroid medication. Acta Endocrinol 1982; 99: 50-55.
- Klein I;: Thyroid hormone and blood pressure regulation in: Laragh JH, Brenner BM, eds <u>Hypertension</u>: pathophysiology, diagnosis and treatment. New York: Raven Press 1989; 1661-1674.
- Ladenson PW, Block KD, Seidman JG: Modulation of atrial natriuretic factor by thyroid hormone. Endocrinology 1988; 123: 652-57
- Lewis RP. The use of systolic time intervals for evaluation of left ventricular function. <u>Cardiovasc Clin</u> 1983;13(3): 335-53.
- Lewis RP, Rittgers SE, Forester WF, et al: A Critical review of the systolic time intervals: <u>Circulation</u> 1977; 56: 146-158.
- Lien E, Aanderud S: Systolic time intervals in the evaluation of thyroid dysfunction. Acta Med. Scand. 1982; 211:265-68.
- Madeddu G, Mameli P, Giraudi D, et al. Systolic time intervals in hyperthyroidism. Am J Endocrinol. 1981; 42(1): 27-33
- Mangschau A. Solem JH, Karlsen RL. Cardiac performance in hyperthyroidism assessed by systolic time intervals and radionuclide ventriculography. Acta Med Scand. 1985;217:

- Mardell R, Marion G. A method of assessing serum triiodothyronine concentrations that is independent of subject's age and variations in concentrations of binding proteins in serum.

  Clinical Chemistry. 1978;24:1792-96
- Prince HP, Ramsden DB. A new theoretical description of the binding of thyroid hormones by serum proteins. Clinical Endocrinology 1977;7:307-24
- Refetoff s. Thyroid function tests. DeGroot Lj,ed. Endocrinology. 1979

  Philadelphia: Grune and Stratton volume one, 387-428
- Rohrer D, Dillmann WH: Thyroid hormone markedly increases the mRNA coding for sarcoplasmic reticulum Ca-ATPase in the rat heart.

  J. Biochem. 1988; 263:6941-6944.
- Salmon D, et al. Chemical hyperthyroidism: serum triiodothyronine levels in clinically euthyroid individuals treated with levothyroxine.

  Archives of Int. Med. 1982;142:571-73
- Samson R: Changes in systolic time intervals in acute myocardial infarction. Br Heart J. 1970; 32(6): 839-846.
- Segal I, Schwartz H, Gordon A: the effect of T3 glucose uptake in cultured chick embryo heart cells. Endocrinology 1977; 101: 143-149.
- Siegel L, McDonald LJ, Robin NI. Estimation of free triiodothyronine levels in serum: a new method and its clinical relevance.

Clinical Chemistry.1978;24:1891-94
Skelton CL: The heart and hyperthyroidism N Engl J Med. 1982; 307: 120
1208.
Spodick DH: Basic requirements for investigating systolic time
intervals. Am J Cardiol 1985;53:656(medical letter)
Yoshinori LD, Bishop RL: Systolic time intervals reconsidere
Reevaluation of the preejection period: absence of relation t
heart rate. Am J Cardiol. 1984; 53:1667-1670
Stefadouros MA, Witham C: Systolic time intervals by echocardiography.
Circulation 1975; 51: 114-117
Sundberg S: Influence of heart rate on systolic time intervals. Am J
Cardiol 1986; 58:1144-1145.
Wartofsby L, Ingbar S: Diseases of the thyroid. Principles of Int Med
Mc Graw Hill, Inc. 1991; 1692-1712
Weissler AM : Current concepts in cordiology. N Eng J Med 1977;296:
321-324.
.Interpreting systolic time intervals in man. J Am Coll Cardio
1983; 2: 1019-20.
Systolic time intervals in : Cheng TO: The International

Textbook of Cardiology. Pergamon Press 1986; 180-193

acute MI. J.Am.Col. Cardiaol. 1987; 9: 161-162.

\_\_.The systolic time intervals and risk stratification after

\_\_\_\_\_\_\_., Lewis RP, Leighton REF: The systolic time intervals as a measure of left ventricular performance in man. Prog.Cardiol. 1972; 1: 155-183.



## BIOGRAPHY

The author received his medical degree in 1981. After internship, he trained in tropical medicine and was awarded the Diploma in Tropical Medicine and Hygiene from the Bangkok School of Tropical Medicine, Mahidol University. From 1983 to 1985, he worked as a staff in the division of general practice. Ramathibodi Hospital. After completing his three year's residency in Internal Medicine in Chulalongkorn Hospital, he joined the division of cardiology as a fellow in 1986, the position he is corrently holding.