Theodor Kocher and Thyroid

JV Pai-Dhungat*, Falguni Parikh**

Theodor Kocher’s (1841-1917) name is associated with multiple contributions in the chosen field, viz. surgical clamp, many notable surgical procedures, hernia repair and testicular abdominal reflex. However, he is mainly remembered for the understanding of thyroid physiology and the treatment of toxic and nontoxic goitre.

Kocher was born in Bern and received his MD degree from that University. He studied under Billroth and learnt from Lister, the strict aseptic routine. Kocher spent his professional days deep in Swiss Alps, where there were many patients of goitres. Subsequently, he visited clinics in Central Europe and England, including those of Billroth, Lister and Langenbeck. He was appointed in the Bern University Surgical Clinic at the early age of 31 and held the post for 45 years. He quickly grasped the general concepts of surgery, pursuing them with meticulous details. This was matched by his remarkable personality and gentle approach in study and treatment of patients. He operated unhurriedly with illimitable skill, soundly based on careful anatomical dissections.

An interest in diseases of thyroid, especially in endemic goitre, seems perfectly logical for a Bern surgeon. Colloid goitre, cosmetically unattractive, occasionally impairing health due to pressure on vital structures of neck, was a common finding in the surgical clinic. During Kocher’s days, the role of normal thyroid in body was poorly understood. A precise association between functional loss of thyroid tissue and myxoedema was not apparent, until it appeared postoperatively. He called it athyreosis or “cachexia strumpipriva”, and accurately described the clinical and laboratory findings of myxoedema. This observation was recognised after analysing the cases, concluding that it was an iatrogenic hazard. The mortality in his first series of thyroidectomies was 12%, but in his 1898 series of 600 patients, there was only one death. Kocher performed more than 5000 thyroidectomies, in his extended surgical career. The irreversible cachexia strumpipriva caused Kocher to halt further thyroidectomies. George Murray started effective use of animal thyroid extract in 1918.

He was modest and unpretentious, eager to learn from others and willing to abandon a procedure, when a better one was described. Kocher’s Textbook of Operative Surgery, served as a standard reference work for a generation of surgeons. Kocher was awarded 1909 Nobel Prize for his work in physiology, pathology and surgery on the thyroid gland.