The pineal gland has historically been considered a legitimate gland of endocrine potential and a considerable amount of evidence has accumulated over the past few decades which points to an important role of pineal and its major hormone melatonin in endocrine physiology of vertebrates.

The critical appraisal of the information gathered so far, hints that this endocrine gland has acknowledgeable pro or antagonistic effect on other endocrine glands including the thyroid glands. Both these glands are highly sensitive to any change in exogenous or endogenous altered hormonal milieu in animal’s physiology. Interdependence of these endocrine components appears to be quite complex and can be modulated by various factors, namely pharmacological manipulations, exogenously and endogenously altered steroid milieu.

Consequently, in the present treatise exploration of the interrelationship between pineal and thyroid gland was explored from morphological and hormonal disposition in euthyroid, hypothyroid and hyperthyroidic male neonatal chicks. And thus intensifying our information regarding morphological and functional relationship of avian pineal and thyroid gland.

Furthermore it was our aim to extend our knowledge regarding the modulation of any such relationship following altered gonadal and adrenal steroidal milieu following hemicastration, hormonal and antihormonal treatment regimen