OPEN ACCESS Freely available online

Endocrinology & Metabolic Syndrome

Editorial

A Brief Note on Pineal gland

Zenebe Negeri *

Department of Medical Physiology, Institute of Health, Jimma University, Jimma, Ethiopia

DESCRIPTION

The epiphysis cerebri, conarium, or pineal gland, may be a little secretory organ within the brain of most vertebrates. The epiphysis cerebri produces internal secretion, a serotonin-derived endocrine that modulates sleep patterns in each time unit and seasonal cycles. The form of the secreter resembles a pine cone, which provides it its name. The epiphysis cerebri is found within the epithalamus, close to the middle of the brain, between the 2 hemispheres, tucked during a groove wherever the 2 halves of the neural structure be part of. The epiphysis cerebri is one in all the system body fluid circumventricular organs during which capillaries are largely pervious to solutes within the blood.

Nearly all vertebrate species possess an epiphysis cerebri. The foremost vital exception may be a primitive vertebrate, the jawless vertebrate. Even within the jawless vertebrate, however, there is also a "pineal equivalent" structure within the dorsal between brain. The cephalochordate branchiostoma lanceolatum, the closest existing relative to vertebrates, additionally lacks a recognizable epiphysis cerebri. The lamper eel (another primitive vertebrate), however, will possess one. Many a lot of complicated vertebrates have lost pineal glands over the course of their evolution.

The results of varied research project in organic process biology, comparative general anatomy and neuroscience have explained the organic process history (phylogeny) of the epiphysis cerebri in numerous vertebrate species. From the purpose of read of biological evolution, the epiphysis cerebri may be a reasonably atrophied photoreceptor. Within the epithalamus of some species of amphibians and reptiles, it's coupled to a light-sensing organ, called the membrane bone eye that is additionally known as the sense organ or pineal eye.

The epiphysis cerebri may be a midplane brain structure that's odd. It takes its name from its pine-cone form. The secreter is reddish-gray and regarding the dimensions of a grain of rice (5-8 mm) in humans. The epiphysis cerebri, additionally known as the endocrine gland, is an element of the epithalamus, and lies between the laterally positioned thalamic bodies and behind the habenular commissure. It's settled within the quadrigeminal cistern almost about the corpora quadrigemina. It additionally settled behind the ventricle and is bathed in liquid body substance provided through a little pineal recess of the ventricle that comes into the stalk of the secreter.

One operate of the epiphysis cerebri is to provide internal secretion. Internal secretion has varied functions within the central systema nervosum, the foremost vital of that is to assist modulate sleep patterns. Internal secretion production is excited by darkness and suppressed by light-weight. Light-weight sensitive nerve cells within the tissue layer find light-weight and send this signal to the suprachiasmatic nucleus (SCN), synchronizing the SCN to the day-night cycle. Nerve fibers then relay the daylight data from the SCN to the paraventricular nuclei (PVN), then to the medulla spinalis and *via* the sympathetic system to superior cervical ganglia (SCG), and from there into the epiphysis cerebri.

The compound pinoline is additionally claimed to be made within the pineal gland; it's one in all the beta-carbolines. This claim is subject to some argument.

Calcification of the epiphysis cerebri is typical in young adults, and has been discovered in kids as young as 2 years elderly. The inner secretions of the epiphysis cerebri are far-famed to inhibit the event of the fruitful glands as a result of once it's severely broken in kids, development of the sexual organs and also the skeleton are accelerated. Epiphysis cerebri calcification is damaging to its ability to synthesize melatonin and scientific literature presents inconclusive findings on whether or not it causes sleep issues.

The calcified secreter is commonly seen in bone x-rays. Calcification rates vary wide by country and correlate with a rise in age, with calcification occurring in a calculable 40% of Americans citizens by age seventeen. Calcification of the epiphysis cerebri is related to corpora arenacea, additionally called "brain sand".

Correspondence to: Zenebe Negeri, Department of Medical Physiology, Institute of Health, Jimma University, Jimma, Ethiopia, E-mail: roobsan@yahoo.com

Received: November 01, 2021; **Accepted**: November 15, 2021; **Published**: November 22, 2021

Citation: Negeri Z (2021) A Brief Note on Pineal gland. Endocrinol Metab Syndr. 10:e014.