Савчук Татьяна. Щитовидная железа – исторический очерк. Постановка проблемы. Первые изображения щитовидной железы можно встретить в древнеегипетских и древневавилонских изображениях. В китайских скульптурах датируемых 2700 годами до нашей эры, щитовидная железа была изображена в виде вытянутого основания у носа. Некоторые изображения показывают, как щитовидная железа связана с функцией зрения.

Цель исследования – проанализировать исторические вехи становления щитовидной железы. Основная часть. Еще в 1600 году до нашей эры одним из первых, китайские лекари в лечении увеличенной щитовидной железы стали использовать морепродукты и водоросли, при этом они не знали, что лечебный эффект возникает от йода. Наибольший интерес к изучению щитовидной железы проявился в греко-римский период. Великий ученый грецко-римского периода Гален считал, что щитовидная железа это некий "буфер" между сердцем и головным мозгом. В византийском периоде ученые продолжили исследования в области щитовидной железы. Новый этап в осмыслении роли щитовидной железы и ее патологии связан с Эпохой Возрождения. Взлет науки и искусства в этот период происходил в прибалтийских регионах, и эндемический зоб не остался незамеченным естествоиспытателями, врачами, а также художниками той поры. В XIX веке стала активно развиваться хирургия щитовидной железы, при этом основной проблемой хирургов оставалась высокая смертность. После получения искусственного тироксина в лечении гипотиреоза (недостаточности гормонов щитовидной железы) началась новая эпоха. Вторая половина 20 века ознаменовалась активным исследованием причин аутоиммунных заболеваний, таких как диффузный токсический зоб, аутоиммунный тиреоидит.

Вывод. Безусловно, будущее развития знаний в области щитовидной железы за исследованиями в области генетики заболеваний, создание новых препаратов и методов диагностики аутоиммунных болезней щитовидной железы.

Ключевые слова: эндокринология, щитовидная железа, тироидология, тироксин.
healers in the treatment of an enlarged thyroid gland began to use
seafood and algae, while they did not know that the healing effect
arises from iodine. For the first time, goiter is mentioned in
Chinese texts approx. 2700 BC A.D. 85. The ancient Chinese
physician Cui Chindi divided neck tumors into hard, incurable
and soft, curable. The Qin dignitary Li Buwei (291–325) wrote in
the famous text “The Spring and Autumn of Mr. Liu” in 239 BC.
“Where the water is light, there are many bald and goiter”. The
Chinese alchemist Koi Houn in 340 recommended the alcolohic
extract of algae as a remedy for goiter. The legendary Sun
Simyang (581–682), a classic of Chinese medicine, a doctor of the
Tang dynasty, “Buddha of Healing”, the creator of a 30-volume
clinical encyclopedia, which was the basis of traditional medicine
in China until the beginning of the 20th century, in the treatise
“Beiji Qianjin Yao Fang – The Most Important Recipes worth a
thousand bars of gold for each urgent case” (652) recommended
not only for goiter, but – most surprisingly – for the treatment of
children with developmental delay – raw or dried cervical gland
(to Chinese: “e”) sheep , deer or buffalo, as well as its juice!
Consequently, the ancient Chinese knew about the connection
between cretinism and goiter and that the drawing of the thyroid
glands also helps with “unpleasant” developmental delay! In this
they are centuries ahead of the medicine of Europe. The emperor
of the Qing dynasty Kangxi (1654–1722) ordered each inhabitant
of Mukden to eat 2 kg of seaweed per year. And for three
hundred years this decree has been strictly implemented in
Mukden. Thanks to him, the inhabitants of Mukden, despite the
geochemical deficiency of iodine in the non-coastal regions
of Manchuria, do not suffer from endemic goiter.

The greatest interest in the study of the thyroid gland
manifested itself in the Greco-Roman period. The prominent
representatives of this period were Archius Celsius (25 BC 50
AD), who was one of the first to distinguish various types of
thyroid tumors. He described thyroid tumors depending on their
content: liquid or thick component. Currently, this means a cyst
in the thyroid gland, the contents of which can be liquid or thick
(colloid). Celsius suggested either removing the cysts of the
thyroid gland, or, if this is not possible, injecting destructive
substances into them. It is important to note that the method of
reducing thyroid cysts using alcohol (ethanol) is currently
working very well. Today, if a patient has a cyst in the thyroid
gland that interferes cosmetically, presses or makes it difficult to
swallow food, ethanol sclerotherapy (“Thyroid nodule
sclerotherapy”) is a good and effective method.

No less great scientist of the Greco-Roman period Gallen
(130–200 AD) actively studied the thyroid gland. Gallen believed
that the thyroid gland is a kind of “buffer” between the heart and
the brain. In this case, the cartilage in the larynx, in front of which
the thyroid gland lies, was called “thyroid” or “oblong shield”.
Gallen believed that the thyroid gland secretes a substance that
lubricates the cartilage of the larynx, followed by movement and
sound. The doctor of the gladiator school and the ancient
pathologist Claudius Galen of Pergamum – believed that the
function of the thyroid gland is absorption, he considered the
goiter to be a protrusion of the larynx, but he knew about the
pituitary gland, its choroid plexuses, the role of the recurrent
laryngeal nerve in voice formation and developed a coherent
theory about the transport of vital heat from the pituitary gland
to nerves and thyroid gland, reminiscent of the provisions on the
pituitary-thyroid regulation of the basal metabolism.

In the Byzantine period, scientists continued research in the
field of the thyroid gland.

So the healer Aetios (527–665 AD), approximately, in 550
AD, one of the first to describe the connection between the
enlargement of the thyroid gland and changes in the eyes (the so-
called ophthalmoopathy) (“Thyrotoxicosis – ophthalmoopathy”).
Aetius (527–665) described both simple goiter and exophthalmic,
referring to the Greco-Roman surgeon Leonidas of Alexandria,
who warned of the possibility of aphiopia in case of damage to the
laryngeal nerve due to surgical treatment of these ailments, similar descriptions of goiter as “bronchocele”
were given by Pavel Eginat (665–690), which apparently
differentiated its hyperthyroid – “hyperemic” forms.

In the seventh century AD, the Greek physician Paul of
Aegina was one of the first to describe the technique of removing
the thyroid gland. Moreover, in 990, Ali-ibn-Abbas was one of
the first to report the surgical removal of a goiter.

During the Renaissance, the thyroid gland was not only
interested in doctors, but also artists and anatomists.

In 1475, the Chinese physician Wang Hei proposed the use of
dried pig thyroid gland to treat an enlarged thyroid gland. Of
course, at present such methods are not used in the treatment of
thyroid diseases.

The great Leonardo da Vinci (1452–1519) was one of the
first to depict the thyroid gland, describing in detail its vessels
and nerves.

A new stage in understanding the role of the thyroid gland
and its pathology is associated with the Renaissance. The rise of
science and art during this period took place in the Alpine
regions, and the endemic goiter did not go unnoticed by
naturalists, doctors, and also artists of that time. It has repeatedly
happened in history that medical science helped art, and art
helped scientific medicine. This is exactly what happened in the
thyroidology of the Renaissance: the first anatomically and
topographically accurate description of the human thyroid gland,
its sketch, which was dozens of years ahead of the development
of the anatomy of that era, one of the first hypotheses about its
role in the body – does not belong to a doctor or a professional
anatomist, and the great Leonardo da Vinci (1452–1519).

In the 17th and 18th centuries, more and more researchers

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began to pay attention to the function of the thyroid gland. After the discovery of iodine in 1811 by Bernard Courtois, researchers from all over the world began to study its therapeutic effect on the thyroid gland. One of the first Austrian physician Jean-François Ciodet (1821) and other scientists of that time described the therapeutic effect of iodine on an enlarged thyroid gland. In 1877, the great German surgeon Theodor Billroth noted that the therapeutic effect of iodine is maximum in the early stages of an increase in the volume of the thyroid gland, while with a large thyroid gland, the therapeutic effect of iodine is minimal. The well-known Lugol’s solution (iodine solution), which was invented by the French chemist Jean Lugol in 1829. Initially by the author, Lugol’s solution was intended for the treatment of tuberculosis, but later, the solution began to be used for more effective treatment of thyrotoxicosis, a condition in which the thyroid gland produces excessive hormones\(^\text{12}\).

In the early 19th century, scientists such as Karl Adolph von Bader (1799–1854) and Robert James Graves (1796–1853) described the link between excess thyroid hormone production and changes in the heart and eyes. The so-called “Merserburg Triad” proposed by Besed. Currently, when detecting thyrotoxicosis, in addition to the name diffuse toxic goiter, experts often use the phrase “Graves’ disease” or “Basedow’s disease”. In the Russian-language literature, one can often find the name of diffuse toxic goiter as “Graves’ disease.”\(^\text{13}\) The great Russian surgeon was the first in Russia to perform thyroid surgery and anatomist Nikolai Ivanovich Pirogov. Since 1877, only 1 patient has died of complications in Billroth. At the same time, special hemostatic clamps were described to them.

An invaluable contribution to the development of thyroid surgery was made by such doctors as Sergei Petrovich Fedorov, Vladimir Andreevich Oppel, Oleg Vladimirovich Nikolaev and Elizaveta Semenovna Drachinskaya.

In 1906, the American surgeon Cryle reported 132 radical lymph node dissections (removal of affected lymph nodes) of the neck for thyroid cancer. The operation included removal of the affected lymph nodes of the neck, sternocleidomastoid muscle and internal jugular vein. Currently, the Kraille operation is rarely performed, due to its high trauma and a pronounced unsatisfactory cosmetic result. After receiving artificial thyroxine in the treatment of hypothyroidism (thyroid hormone deficiency), a new era. Artificial thyroxine is identical to human thyroxine, which means that when a thyroxine tablet is received, the patient’s body does not recognize it as foreign or “not his own”. Thyroxine has become widely used by endocrinologists in the treatment of hypothyroidism, surgeons were able to more safely perform operations in the amount of complete removal of the thyroid tissue, without fear of exposing the patient to hypothyroidism\(^\text{14}\). The second half of the 20th century was marked by active research into the causes of autoimmune diseases, such as diffuse toxic goiter, autoimmune thyroiditis. Revealed antibodies to thyroperoxidase, antibodies to thyroglobulin, antibodies to TSH receptors. By the end of the 20th century, the cycle of synthesis of thyroid hormones was most fully described with a detailed description of their movement inside the cell, followed by secretion into the general bloodstream and effects on the body.

**Conclusion.** Undoubtedly, the future of the development of knowledge in the field of the thyroid gland lies in research in the field of genetics of diseases, the creation of new drugs and methods for diagnosing autoimmune diseases of the thyroid gland.

**Савчук Тетяна. Щитоподібна залоза – історичний нирис. Постановка проблеми.** Перші зображення щитоподібної залози можна зустріти в давньогрецьких і старокитайських скульптурах датуються 2700 роками до нашої ери. Історіографічна база. Щитоподібна залоза була відома як авторам давини і середньовіччя, які хоча і описували зоб і кретинізм, але ще не пов’язували ці захворювання з розладом функцій залози. Мета дослідження – проаналізувати історичні віхи становлення тіреоідології. Основна частина. Ще в 1600 році до нашої ери одними з перших, китайські лікарі в лікуванні збільшеної щитоподібної залози стали використовувати морепродукти і водоростей, при цьому вони не знали, що лікувальний ефект виникає від йоду. Великий вчений Галлен вважав, що щитоподібна залоза це якийсь “буфер” між серцем і головним мозком. У 19 столітті стала активно розвиватися хірургія щитоподібної залози, при цьому основною проблемою хірургів залишалася висока смертність. У 1881 році більшість одні з перших в Європі доповів про 48 успішних операцій на щитоподібної залози. Після отримання штучного тиреоідину в лікуванні гіпо- тиреоідію (недостатності гормонів щитоподібної залози) почала нова епоха. Друга половина 20 століття ознаменувалася активним дослідженням причин аутоімунних захворювань, таких як дифузний токсичний зоб, аутоімунний тиреоїдит. Виявлено, антитіла до тиреопероксидази, антитіла до тиреоглобуліну, антитіла до рецепторів ТТГ. Висновок. Безумовно, майбутнє розвитку знань в області щитоподібної залози за дослідженнями в галузі генетики захворювань, створення нових препаратів і методів діагностики аутоімунних захворювань щитоподібної залози.

**Ключові слова:** ендокринологія, тироідологія, тироїдамія, інфаркт серця, інсульт.

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