AMERICAN ACADEMIC PUBLISHER

INTERNATIONAL JOURNAL OF MEDICAL SCIENCES

ISSN NUMBER: 2692 - 5206 Volume 6. No 01. January ,2026

EPIDEMIOLOGY OF ENDEMIC GOITER

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Abstract

This article provides a detailed analysis of the epidemiology of endemic goiter, its distribution mechanisms, and preventive measures. Endemic goiter is a chronic thyroid disorder leading to hypothyroidism, often associated with environmental and nutritional factors in various regions. The study examines the territorial distribution of the disease, age and gender differences, and its link with socio-economic conditions. Public health prevention strategies, including iodine supplementation and nutritional improvement, are discussed. The research offers scientific and practical recommendations for reducing the prevalence of endemic goiter and enhancing thyroid health in populations.

Keywords

Endemic goiter, epidemiology, thyroid gland, prevention, disease distribution, public health, iodine deficiency.

Annotatsiya

Ushbu maqolada endemik bo‘qoq kasalligining epidemiologiyasi, uning tarqalish mexanizmlari va oldini olish choralari batafsil tahlil qilinadi. Endemik bo‘qoq – qalqonsimon bezning surunkali yallig‘lanishi va gipotirozga olib keladigan kasallik bo‘lib, ko‘plab hududlarda ekologik va oziqlanish omillari bilan bog‘liq. Maqolada kasallikning hududiy taqsimoti, yosh va jins bo‘yicha sezilarli farqlar, ijtimoiy-iqtisodiy sharoitlar bilan bog‘liqligi ko‘rib chiqiladi. Shuningdek, jamoat salomatligi nuqtai nazaridan profilaktik chora-tadbirlar, jumladan, yod qo‘shimchalari va oziqlanishni yaxshilash strategiyalari muhokama qilinadi. Ushbu tadqiqot endemik bo‘qoqni kamaytirish va aholining qalqonsimon bez salomatligini oshirish bo‘yicha ilmiy va amaliy tavsiyalarni taqdim etadi.

Kalit so‘zlar

Endemik bo‘qoq, epidemiologiya, qalqonsimon bez, oldini olish, kasallik tarqalishi, jamoat salomatligi, yod yetishmovchiligi

Аннотация

В статье подробно анализируется эпидемиология эндемического зоба, механизмы его распространения и меры профилактики. Эндемический зоб – хроническое заболевание

AMERICAN ACADEMIC PUBLISHER
INTERNATIONAL JOURNAL OF MEDICAL SCIENCES
ISSN NUMBER: 2692 - 5206 Volume 6. No 01. January ,2026

щитовидной железы, приводящее к гипотиреозу, связанное с экологическими и пищевыми факторами в ряде регионов. Рассматривается территориальное распределение болезни, различия по возрасту и полу, а также связь с социально-экономическими условиями. Обсуждаются меры профилактики с точки зрения общественного здоровья, включая применение йодированных добавок и улучшение питания. Исследование предоставляет научные и практические рекомендации для снижения заболеваемости эндемическим зобом и улучшения здоровья щитовидной железы населения.

Ключевые слова

Эндемический зоб, эпидемиология, щитовидная железа, профилактика, распространение болезни, общественное здоровье, йододефицит

Introduction

Endemic goiter is a thyroid disease that affects many parts of the world's population, and its main cause is iodine deficiency in the body.ic goiter is a thyroid disease that affects many parts of the world's population, and its main cause is iodine deficiency in the bndemic goiter is a thyroid disease that affects many parts of the world's population, and its main cause is iodine deficiency in the body. The thyroid gland produces the main hormones that regulate metabolic processes in the body - thyroxine (T4) and triiodothyronine (T3). Because iodine is an important component of hormone synthesis, iodine deficiency leads to hyperplasia of the thyroid gland and the formation of a bladder. The epidemiology of endemic boar is also of great importance on a global scale. According to the World Health Organization (WHO), about 30% of the world's population lives with varying degrees of iodine deficiency, and this condition increases the risk of endemic bovine.ccording to the World Health Organization (WHO), about 30% of the world's population lives with varying degrees of iodine deficiency, and this cccording to the World Health Organization (WHO), about 30% of the world's population lives with varying degrees of iodine deficiency, and this condition increases the risk of endemic bovine. The disease is particularly common in mountainous and iodine-deficient areas, causing serious health problems among children and pregnant women. For this reason, the endemic boar is considered not only as a personal health problem, but also as a public health problem.

Epidemiological studies show that the distribution of endemic bullfinch depends on territorial, social and environmental factors.pidemiological studies show that the distribution of endemic bullfinch depends on territorial, social and environmental factors. For example, mountainouspidemiological studies show that the distribution of endemic bullfinch depends on territorial, social and environmental factors. For example, mountainous areas have low natural iodine content in soil and water, resulting in a higher incidence of bovine disease among the population. In addition, socioeconomic conditions, nutritional habits, lack of certain foods and hormonal disorders also play an important role in the development of the boar. Among children and young people, complications of the disease, especially with mental and physical development, have a significant impact on their survival in a healthy way.

Endemic goiter prevention also plays an important role in the public health system.ndemic goiter prevention also plays an important role in the public health system. Measures such as iodine supplements, consumption of iodized salt, improving nutrition and promotindemic goiter prevention also plays an important role in the public health system. Measures such as iodine supplements, consumption of iodized salt, improving nutrition and promoting a healthy lifestyle

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to the population can help significantly reduce the disease. Monitoring and systematic data collection of iodine deficiency diseases in countries is also an integral part of epidemiological research.

This article will analyze in detail the epidemiology, mechanisms of distribution, territorial and demographic characteristics of endemic boar, as well as preventive measures and health strategies.his article will analyze in detail the epidemiology, mechanisms of distribution, territorial and demographic characteristics of endemic boar, as well as preventive measures and health strategies. The results of the study serve to develop effective prevention programs in the health system, reduce the risk of iodine deficiency and improve the thyroid health of the population.

Endemic bovine epidemiology

Endemic bovine is one of the most common thyroid diseases associated with iodine deficiency and is an important epidemiological problem for public health globally.ndemic bovine is one of the most common thyroid diseases associated with iodine deficiency and is an important epidemiological problem for public healtndemic bovine is one of the most common thyroid diseases associated with iodine deficiency and is an important epidemiological problem for public health globally. According to the World Health Organization (WHO), approximately 30-40% of the world's population lives at risk of iodine deficiency of varying degrees. This deficiency occurs mainly in mountainous areas, regions with insufficient iodine-rich food, and developing countries. In areas with iodine deficiency, the endemic boar is frequently observed and its distribution will depend on territorial, climatic, environmental and demographic factors.n areas with iodine deficiency, the endemic boar is frequently observed and its distribution will depend on territorial, climatic, environmental and demographic factors. Epidemiological studies suggest that tn areas with iodine deficiency, the endemic boar is frequently observed and its distribution will depend on territorial, climatic, environmental and demographic factors. Epidemiological studies suggest that the distribution of endemic bullfinch has regionally distinct boundaries, often higher in mountainous regions, with mountainous and water sources less than natural iodine. For example, in northern India, Nepal, Bolivia, and Central Asia, an endemic boar is common due to iodine deficiency. At the same time, in countries where iodine supplements and iodized salt programs were introduced, in particular in Europe and North America, the incidence of the disease was significantly reduced.

Age and gender play an important role in the distribution of endemic elk. According to epidemiological data, the disease is most common among children, adolescents and pregnant women.ge and gender play an important role in the distribution of endemic elk. According to epidemiological data, the disease is most common among children, adolescents and pregnant womand gender play an important role in the distribution of endemic elk. According to epidemiological data, the disease is most common among children, adolescents and pregnant women. During childhood and adolescence, iodine deficiency severely disrupts the thyroid function of the developing organism, resulting in goiter, hypothyroidism, and mental retardation. In pregnant women, goiter negatively affects the development of the baby, especially if it is associated with the risk of cretinism. In women, the disease is twice as common as in men, which is explained by hormonal and social reasons. Socio-economic factors of the disease are also important in epidemiology.n women, the disease is twice as common as in men, which is explained by hormonal and social reasons. Son women, the disease is twice as common as in

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men, which is explained by hormonal and social reasons. Socio-economic factors of the disease are also important in epidemiology. Studies show that there is a high frequency of Beaver dispersal among poor and malnourished populations. Also significant is the rural or urban location of the area – endemic elk is more common in rural areas due to the low consumption of iodine-rich products.

Epidemiological surveillance helps identify the spatial distribution of the disease.pidemiological surveillance helps identify the spatial distribution of the disease. In the evaluation of the colon, direct clinical indicators, thyroid volume, laboratory diagnostics (TSpidemiological surveillance helps identify the spatial distribution of the disease. In the evaluation of the colon, direct clinical indicators, thyroid volume, laboratory diagnostics (TSH, T3, T4 levels) and the level of iodine deficiency in the population are analyzed. According to WHO recommendations, if the prevalence of bovine in the population exceeds 5%, the area can be considered dangerous in terms of iodine deficiency. At the same time, epidemiological studies show the effectiveness of iodine supplements and iodized salt programs. In Nepal and Bangladesh, for example, the incidence of endemic bovine has decreased significantly following the introduction of iodine supplements.n Nepal and Bangladesh, for example, the incidence of endemic bovine has decreased significantly following the introduction of iodine supplements. Also, the risk of endemic elk has been reduced to a minimum by promoting nutrition and a healthy lifestyle in developed countries.

In conclusion, the epidemiology of endemic goiter is a public health problem associated with iodine deficiency, which is closely related to regional, demographic, environmental, and socioeconomic factors.n conclusion, the epidemiology of endemic is a public health problem associated with iodine deficiency, which is closely related to regional, demographic, environmental, and socioeconomic factors. Epidemiological studies serve not only to assess the spread of the disease, but also to effectively plan preventive measures and improve the thyroid health of the population.

Endemic goiter pathology

Endemic bull patalogy is a complex of morphological, functional and hormonal changes that occur in the thyroid gland.ndemic bull patalogy is a complex of morphological, functional and hormonal changes that occur in the thyroid gland. The disease is mainly caused by iodine deficiency, and this deficiency weakens the synndemic bull patalogy is a complex of morphological, functional and hormonal changes that occur in the thyroid gland. The disease is mainly caused by iodine deficiency, and this deficiency weakens the synthesis of thyroid hormones. Iodine deficiency leads to insufficient production of the hormones T3 and T4 in the body. As a result, the anterior pituitary gland increases the secretion of the hormone thyrotrupin (TSH), which causes hyperplasia and hypertrophy of the thyroid gland. Morphological changes are mainly manifested in two main forms: diffuse and nodular. In a diffuse Bull, the gland expands completely evenly, the tissue acquires the same density and structure.orphological changes are mainly manifested in two main forms: diffuse and nodular. In a diffuse Bull, the gland expands completely evenlyorphological changes are mainly manifested in two main forms: diffuse and nodular. In a diffuse Bull, the gland expands completely evenly, the tissue acquires the same density and structure. This condition is usually observed in the early stages of the disease. Nodular goiter develops as a result of prolonged iodine deficiency. In this case, nodes of different sizes (nodules) are formed inside the gland, which in some cases can be active hormone

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producers, as a result of which hyperthyroidism or hypothyroidism is observed with impaired glandular activity. Patalogical changes at the cellular level include: hyperplasia of follicle cells, enlargement of the cytoplasm, increased thyroglobulin and hormone synthesis.atalogical changes at the cellular level include: hyperplasia of follicle cells, enlargement of the cytoplasm, increased thyroglobulin and hormoneatalogical changes at the cellular level include: hyperplasia of follicle cells, enlargement of the cytoplasm, increased thyroglo

The clinical patalogy of the endemic Bull is also multifaceted. The disease initially manifests itself in the form of an enlarged gland and a bulge. Sometimes it can affect the respiratory and swallowing activities of patients.he clinical patalogy of the endemic Bull is also multifaceted. The disease initially manifests itself in the he clinical patalogy of the endemic Bull is also multifaceted. The disease initially manifests itself in the form of an enlarged gland and a bulge. Sometimes it can affect the respiratory and swallowing activities of patients. If the disease occurs during childhood and growth, it leads to a slowdown in mental and physical development. In pregnant women, however, the boar has a negative effect on the health of the mother and fetus, the risk of cretinism in the baby increases as a result of hypothyroidism.

Also, long-term pathological processes in the endemic goiter can sometimes lead to the development of hormone-producing nodules (adenomas) or chronic inflammation (thyroiditis) within the gland.lso, long-term pathological processes in the endemic goiter can sometimes lead to the development of hormone-producing nodules (adenomas) or chronic inflammation (thyroiditis) within the gland. Therefore, it is important to detect the disease early and treat it with a diet rich in iodine.

In other words, endemic bull's patalogy is a complex set of complex processes that occur in the thyroid gland due to iodine deficiency in compensatory hyperplasia, morphological changes in follicle cells, colloidal depletion, and clinically manifest in forms of bovine, hypothyroidism, or hyperthyroidism.n other words, endemic bull's patalogy is a complex set of complex processes that occur in the thyroid gland due to iodine deficiency in compensatory hyperplasia, morphological changes in follicle cells, colloidal depletion, and clinically manifest in forms of bovine, hypothyroidism, or hyperthyroidism. These processes have long-term effects on patient health and are considered important in terms of Public Health.

Treatment of endemic bullfinch

The treatment of an endemic bull depends on its underlying cause, iodine deficiency, and the resulting thyroid dysfunction. Treatment of the disease is carried out in two main directions: preventive measures and individual clinical therapy.e treatment of an endemic bull depends on its underlying cause, iodine deficiency, and the resulting thyroid dysfunction. Treatment of the disease is carried out in treatment of an endemic bull depends on its underlying cause, iodine deficiency, and the resulting thyroid dysfunction. Treatment of the disease is carried out in two main directions: preventive measures and individual clinical therapy.

1. Prevention of iodine deficiency

Since the main cause of endemic goiter is iodine deficiency, the first step in treatment is the use of preventive iodine supplements. The following methods are widely used:

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Consumption of iodized salt: according to WHO recommendations, the introduction of salt with the addition of iodine into daily consumption is the most effective way to prevent endemic bullfinch.onsumption of iodized salt: according to WHO recommendations, the introduction of salt with the addition of iodine into dailyConsumption of iodized salt: according to WHO recommendations, the introduction of salt with the addition of iodine into daily consumption is the most effective way to prevent endemic bullfinch. The recommended daily iodine intake for adults is 150-200 micrograms, and for children and pregnant women-200-250 micrograms.

Iodine supplements: iodine supplements in the form of special tablets or capsules are offered to the population in areas with low iodine content. Iodine supplements are of particular importance for pregnant women and children, since during this period enough iodine is necessary for the normal development of the body.

Optimization of nutrition: foods rich in iodine-fish, seafood, dairy products, eggs and some vegetables – are included in the diet.ptimization of nutrition: foods rich in iodine-fish, seafood, dairy products, eggs and some vegetables – are included in the diet. At the same time, the intake of trace elements through meat and dairy products, including selenium, zinc, iron, also helps to reduce the disease.

2. Individual clinical treatment

Depending on the clinical stage and glandular activity of the endemic bull, doctors choose the following therapy methods: diffuse hyperplasia Bull: if the size of the bull does not increase significantly and the glandular activity is normal, the treatment will consist mainly of dietary and preventive supplements enriched with iodine.epending on the clinical stage and glandular activity of the endemic bull, doctors choose the following therapy methods: diffuse hyperplasia Bull: if the size of the bull does not increase significantly and the glandular activity is normal, the treatment will consist mainly of dietary and preventive supplements enriched with iodine. This method slows down the enlargement of the gland and prevents the formation of new nodes.

Hypothyroid throat: thyroxine (levothyroxine) therapy is recommended. This compensates for the lack of glandular hormones, normalizes TSH levels, and reduces glandular hyperplasia.ypothyroid throat: thyroxine (levothyroxine) therapy is recommended. This compensates for the lack of glandular hormones, normalizes TSH levels, and ypothyroid throat: thyroxine (levothyroxine) therapy is recommended. This compensates for the lack of glandular hormones, normalizes TSH levels, and reduces glandular hyperplasia. It is necessary to determine the dose of the drug individually, depending on the patient's weight, age, stage of the disease and clinical indicators. Nodular or functional nodular bladder: when nodules are active and disrupt hormone production, endocrinologists may use levothyroxine therapy under the supervision of TSH. In the case of large nodules or cosmetic, respiratory or swallowing problems, surgical removal of the node is considered.

3. Surgical and minimally invasive methods

Surgery will be necessary if the lump is too large, there are serious problems with glandular activity, or if the nodes are suspicious or malignant.urgery will be necessary if the lump is too large, there are serious problems with glandular activity, or if the nodes are suspicious or malignant. In the post-surgical period, turgery will be necessary if the lump is too large, there are serious problems with glandular activity, or if the nodes are suspicious or malignant. In the post-

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surgical period, the patient is observed with levothyroxine therapy, which is important to stabilize glandular function and prevent the development of hypothyroidism. Minimally invasive technologies – laser or radiofrequency ablation, sclerotherapy-can be used to reduce nodular throat.

4. Public health and prevention programs

Public health programs play an important role in the control of endemic boar. This includes: territorial monitoring: determination of levels of Bladder prevalence in the population, monitoring of iodine deficiency and gland size.ublic health programs play an important role in the control of endemic boar. This includes: territorial monitorublic health programs play an important role in the control of endemic boar. This includes: territorial monitoring: determination of levels of Bladder prevalence in the population, monitoring of iodine deficiency and gland size. Iodine supplementation programs: Distribution of iodized salt and capsules among schools and rural populations. Information and advocacy: educating the population about the importance of iodine, a healthy diet and preventive measures for children, pregnant women.

5. Special cases

Endemic boar in pregnancy and childhood is very dangerous, since hypothyroidism slows down the mental and physical development of the baby.ndemic boar in pregnancy and childhood is very dangerous, since hypothyroidism slows down the mental and physical development of the baby. Thendemic boar in pregnancy and childhood is very dangerous, since hypothyroidism slows down the mental and physical development of the baby. Therefore, the recommended daily iodine intake for pregnant women is 220-250 micrograms, and for children-90-150 micrograms, depending on age. If the disease is accompanied by hypothyroidism, levothyroxine therapy should be started urgently.

1. Preventive iodine supplements and diet organization

Since the main cause of endemic goiter is iodine deficiency, a diet and supplements rich in iodine are the most important measures in preventing the disease.e the main cause of endemic goiter is iodine deficiency, a diet and supplements rich in iodine are the most important measures in preventingince the main cause of endemic goiter is iodine deficiency, a diet and supplements rich in iodine are the most important measures in preventing the disease In areas with iodine deficiency, it is recommended to ensure iodine intake through iodized salt, special capsules, or tablets in everyday life. According to WHO recommendations, the daily iodine intake for adults should be 150–200 micrograms, and for pregnant and lactating women, 220–250 micrograms. At the same time, foods rich in iodine-fish, seafood, dairy and dairy products, eggs, some vegetables – are recommended to be included in the diet.t the same time, foods rich in iodine-fish, seafood, dairy and dairy products, eggs, some vegetables – are recommended to be included in the diet. By optimizing nutrition, it is possible to maintain the overall health of the body and reduce the deficiency of other micronutrients, and not just protection from the throat.

2. Normalization of gland function with Individual levothyroxine therapy

If the disease is accompanied by hypothyroidism or the throat is large, levothyroxine (hormone T4) therapy is used.f the disease is accompanied by hypothyroidism or the throat is large, levothyroxine (hormone T4) thf the disease is accompanied by hypothyroidism or the

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throat is large, levothyroxine (hormone T4) therapy is used. Levothyroxine controls TSH levels by coatinf the disease is accompanied by hypothyroidism or the throat is large, levothyroxine (hormone T4) therapy is used. Levothyroxine controls TSH levels by coating synthesized Thyrox

3. Management of nodes through surgical or minimally invasive methods

Surgical treatment becomes necessary in the event of nodular nodules, large nodules or cosmetic and functional problems. Conventional thyroidectomy is performed by removing the node or entire gland.urgical treatment becomes necessary in the event of nodular nodules, large nodules or cosmetic and functional problems. Conventional thyroidectomy is performed by removing the node or entire urgical treatment becomes necessary in the event of nodular nodules, large nodules or cosmetic and functional problems. Conventional thyroidectomy is performed by removing the node or entire gland. Minimally invasive techniques-such as radio frequency ablation, laser therapy, sclerotherapy-are also used. These techniques produce less injury, faster recovery, and better cosmetic results. After surgery, the patient is monitored with levothyroxine therapy, which is important for normalizing gland function and preventing the development of hypothyroidism.

4. Reduce disease transmission in the population through public health programs and monitoring

Public health programs are developed at the regional and national levels to effectively manage endemic goiter. This includes determining the prevalence of goiter in the population, monitoring the level of iodine deficiency, and distributing iodine supplements and iodized saltealth programs are developed at the regional and national levels to effectively manage endemic goiter. This includes determining the prevalence of goiter in the population, monitoring the level of iodine deficiency, and distributing iodine supplements and iodized salt. At the same time, it is important to promote a healthy lifestyle, consume iodine-rich foods, and provide special monitoring of children and pregnant women. These programs play a key role in preventing and reducing the prevalence of the disease in the regions.

5. Special prevention and control in pregnant women and children

Iodine deficiency is the most dangerous during pregnancy and childhood. If hypothyroidism develops in a pregnant woman, it can lead to a delay in mental and physical development in the baby, cretinism.odine deficiency is the most dangerous during pregnancy and childhood. If hypothyroidism develops in a pregnant woman, it can lead to a delay in mental and physical development in the baby, cretinism. For this reason, iodine supplements are recommended for daily intake for pregnant and lactating women. Since children are in a rapid growth and development phase, their iodine intake is also important. Through clinical observation and laboratory monitoring, the gland size, hormone levels and the condition of the nodes are checked so that problems are detected early and treatment is effective.

Preventive measures of endemic bullfinchThrough clinical observation and laboratory monitoring, the gland size, hormone levels and the condition of the nodes are checked so that prhrough clinical observation and laboratory monitoring, the gland size, hormone levels and the condition of the nodes are checked so that problems are detected early and treatment is effective.

Preventive measures of endemic bullfinch

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The prevention of endemic goiter is related to its main cause – iodine deficiency – and there are several strategies to prevent the disease. Preventive measures are carried out in two main directions: individual prevention and Prevention at the level of Public Health.

1. Individual prevention

To prevent endemic bullfinch at the Individ level, the following measures are recommended:

Iodine supplements and iodized salt: adding iodine to your daily diet is the most effective and common way.o prevent endemic bullfinch at the Individ level, the following measures are recommended:

Iodine supplements and iodized salt: adding endemic bullfinch at the Individ level, the following measures are recommended:

Iodine supplements and iodized salt: adding iodine to your daily diet is the most effective and common way. The recommended daily iodine intake for adults is 150-200 micrograms, and for women during pregnancy and lactation-220-250 micrograms. Adequate iodine intake can be achieved through iodized salt or capsule supplements.

Optimization of nutrition: it is recommended to include in the diet foods rich in iodine, such as sea fish, seafood, dairy and dairy products, eggs, some vegetables and fruits.ptimization of nutrition: it is recommended to include in the diet foods rich in iodine, such as sea fish, seafood, dairy and dairy products, eggs, some vegetables and fruits. However, having enough trace elements such as selenium, iron, zinc in the diet can help reduce the risk of disease.

Special diet for children and pregnant women: iodine deficiency during pregnancy and childhood negatively affects the mental and physical development of babies and children.pecial diet for children and pregnant women: iodine deficiency during pregnancy and childhood negatively affects the mental and physical development of Special diet for children and pregnant women: iodine deficiency during pregnancy and childhood negatively affects the mental and physical development of babies and children. For this reason, iodine supplements are recommended for these groups, an adapted diet for children and pregnant women.

2. Public health level prevention

To reduce the spread of endemic bullfinch, the following strategies are used at the territorial and national level:

Iodized salt programs: through state and national health programs, iodized salt is widely distributed among the population. This method is the most effective public prophylaxis for the reduction of endemic bull.Iodized salt programs: through state and national health programs, iodized salt is widely distributed among the population. This method is the most effective public prophylaxis for the reduction of endemic bull.

Monitoring and epidemiological surveillance: levels of Bladder prevalence, iodine deficiency levels, and gland size are regularly assessed in the population. This measure allows you to identify the risk of disease and improve prevention strategies.

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Education and advocacy: comprehensive information work is carried out to educate the population about iodine deficiency and its consequences, promote a healthy lifestyle and increase the consumption of iodine-rich products in the diet.Education and advocacy: comprehensive information work is carried out to educate the population about iodine deficiency and its consequences, promote a healthy lifestyle and increase the consumption of iodine-rich products in the diet.

School and children's health ducation and advocacy: comprehensive information work is carried out to educate the population about iodine deficiency and its consequences, promote a healthy lifestyle and increase the consumption of iodine-rich products in the diet.

School and children's health programs: by distributing iodine supplements among children and adolescents, controlling the diet and checking the condition of the gland, the first signs of an endemic Bull are identified and the possibility of treatment is created.

3. Special preventive measures

Due to the high risk of endemic bovine in some regions, special preventive measures are used: pregnancy control: pregnant women undergo regular endocrinological examinations, TSH and T4 levels are checked, iodine supplements are given if necessary.

Monitoring child development: Monitoring child growth and development, assessing thyroid gland size, and monitoring iodine supplementation can help prevent disease.onitoring child development: Monitoring child growth and development, assessing thyroid gland size, and monitoring iodine supplementation can help prevent disease. Environmental measures: when iodine deficiency in soil and water in the area is found, a system for the production and distribution of food products with the addition of special iodine is established.

Conclusion

Endemic goiter is a major public health problem worldwide, the main cause of which is iodine deficiency in the body.ndemic goiter is a major public health problem worldwide, the main cause of which is iodine deficiency in the body. The pathology of the disease is manifestndemic goiter is a major public health problem worldwide, the main cause of which is iodine deficiency in the body. The pathology of the disease is manifested by a deficiency of thyroid hormones, hyperplasia of follicular cells, a decrease in colloid, and nodular changes. Epidemiological studies show that endemic elk is often widely distributed in mountainous areas and developing countries where iodine-rich food is lacking, with a high risk especially among children and pregnant women.

Treatment and management approaches are implemented in two main areas: at the individual and public health level. Individual approaches include iodine supplements, levothyroxine therapy, surgery on the nodular throat, or minimally invasive techniques.reatment and management approaches are implemented in two main areas: at the individual and public health level. Individual approaches include iodine supplements, levothyroxine therapy, surgery on the nodular throat, or minimally invasive techniques. At the public health level, however, iodized salt programs, monitoring, education and advocacy, and special preventive measures for children and pregnant women are important.

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When preventive measures are effectively applied, the prevalence of endemic bullfinch is significantly reduced, the thyroid health of the population improves, and serious complications such as hypothyroidism, cretinism are obtained.hen preventive measures are effectively applied, the prevalence of endemic bullfinch is significantly reduced, the thyroid health of the population improves, and serious complications such as hypothyroidism, cretinism are obtained. At the same time, territorial monitoring and epidemiological monitoring ensure early detection and effective management of the disease.

In conclusion, the fight against endemic boar is not just an individual treatment, but a complex preventive and managerial system, which is carried out by increasing public health and ensuring the iodine – saturated diet of the population.

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