Adrenocortical cancer: Overview and considerations.

Leo Brown*

Department of endocrinology, University of Turin, Orbassano, Italy

Abstract

Adrenocortical cancer is a rare and aggressive form of cancer that arises from the adrenal gland. This type of cancer can occur in individuals of all ages, although it is most commonly diagnosed in adults between the ages of 30 and 50. Adrenocortical cancer can be difficult to diagnose due to its rarity and non-specific symptoms, which can include abdominal pain, weight loss, and fatigue. The diagnosis of adrenocortical cancer typically involves a combination of imaging studies, blood tests, and biopsy. Treatment options for adrenocortical cancer depend on the stage and extent of the cancer, but may include surgery, chemotherapy, and radiation therapy. Despite advances in treatment, the prognosis for adrenocortical cancer remains poor, with a five-year survival rate of approximately 30-40%. Several factors may increase an individual's risk of developing adrenocortical cancer, including a family history of the disease, certain genetic syndromes, and exposure to certain chemicals. As such, individuals with these risk factors may benefit from regular screening and surveillance. Overall, adrenocortical cancer is a rare and challenging disease that requires a multidisciplinary approach to management. Ongoing research and advances in understanding the biology of this cancer will be critical in improving outcomes for affected individuals.

Keywords: Adrenocortical, Carcinoma.

Introduction

Adrenocortical cancer is considered a rare cancer, accounting for less than 1% of all cancers. However, it is estimated that about 1 in every 100,000 people develops adrenocortical cancer each year. Despite its rarity, adrenocortical cancer is a dangerous disease that can have significant impact on the affected individual's health and well-being. There are several different types of adrenocortical cancer, including adrenocortical carcinoma, adrenal adenoma, and adrenal pheochromocytoma. Adrenocortical carcinoma is the most common and most aggressive form of adrenocortical cancer, and it is responsible for the majority of adrenocortical cancer cases [1].

Symptoms of adrenocortical cancer

Adrenocortical cancer often produces no symptoms in its early stages, making it difficult to diagnose. When symptoms do appear, they can be vague and non-specific, making them difficult to attribute to adrenocortical cancer specifically. Some of the most common symptoms of adrenocortical cancer include:

- Weight gain, especially in the abdominal area
- Easy bruising or skin discoloration
- Fatigue
- Weakness
- High blood pressure
- Increased thirst and frequent urination
- Abdominal pain or discomfort
- Depression or anxiety

In some cases, adrenocortical cancer may also produce excess hormones, leading to symptoms such as:

- Excessive hair growth in females
- Deepening of the voice in males
- Irregular menstrual periods
- Enlarged breasts in males
- Increased muscle mass and strength
- Decreased sex drive
- Diagnosis of Adrenocortical Cancer

Adrenocortical cancer can be difficult to diagnose, as many of its symptoms are also present in other conditions. The first step in diagnosing adrenocortical cancer is to conduct a thorough physical exam and medical history review. This may be followed by various diagnostic tests, including:

Blood tests: Blood tests can be used to measure hormone levels and check for other signs of adrenocortical cancer.

***Correspondence to:** Leo Brown, Department of endocrinology, University of Turin, Orbassano, Italy, E-mail: brown.Leo@unito.it

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Imaging tests: Imaging tests, such as CT scans, MRI scans, and PET scans, can help to identify a mass or tumor in the adrenal glands.

Biopsy: A biopsy is a procedure that involves removing a small sample of tissue from the affected area for laboratory analysis. This can help to determine whether the tissue is cancerous and what type of cancer it is [2].

Treatment of adrenocortical cancer

Treatment for adrenocortical cancer depends on various factors, including the type and stage of the cancer, the individual's overall health, and the patient's preferences. The most common treatments for adrenocortical cancer include:

Surgery: Surgery is often the first line of treatment for adrenocortical cancer, as it is the most effective way to remove the cancerous tissue. In some cases, the entire adrenal gland may need to be removed, while in others, only a portion of the gland may need to be removed.

Chemotherapy: Chemotherapy involves the use of drugs to kill cancer cells. This type of treatment may be recommended for individuals with advanced adrenocortical cancer that has spread to other parts of the body [3].

Symptoms of adrenocortical cancer may include weight gain, high blood pressure, weakness, and abdominal swelling. In some cases, the tumor may produce excess hormones, leading to further symptoms such as increased thirst, increased appetite, and abnormal hair growth. Diagnosis of adrenocortical cancer typically involves imaging tests such as CT scans or MRI scans, as well as blood tests to measure hormone levels. If a tumor is detected, a biopsy may be performed to confirm the diagnosis and determine the type of cancer [4]. Treatment for adrenocortical cancer typically involves surgery to remove the affected gland and surrounding tissue, followed by chemotherapy and/or radiation therapy to kill any remaining cancer cells. In some cases, hormone replacement therapy may be necessary to replace hormones that the affected gland was producing [5]. It is important to note that adrenocortical cancer is a rare condition, and many cases may not require treatment or may respond well to treatment. However, in severe cases, the cancer may spread to other parts of the body and may become difficult to treat.

Conclusion

Adrenocortical cancer is a rare but aggressive form of cancer that affects the adrenal glands. These glands are responsible for producing hormones that regulate various bodily functions. Adrenocortical cancer can cause an overproduction of certain hormones, leading to a range of symptoms, including high blood pressure, weight gain, and diabetes. Diagnosis of adrenocortical cancer typically involves imaging tests such as CT scans and MRIs, as well as blood tests to measure hormone levels. Treatment options may include surgery, chemotherapy, and radiation therapy, depending on the stage of the cancer and the overall health of the patient. Unfortunately, adrenocortical cancer can be difficult to detect early, and it has a high rate of recurrence even after treatment. Therefore, it is important to monitor for any signs or symptoms of the disease and to seek medical attention if any concerns arise.

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