

Some cancer drugs may cause people to develop autoimmune disease



As immunotherapies are increasingly used for a range of cancers, new cases of rheumatic disease are likely to emerge.

INTRODUCTION

Immune checkpoint inhibitors are a group of medicines used to treat some cancers. They work with a person's immune system to fight the cancer. Immune checkpoint inhibitors include drugs called nivolumab (also known by its brand name Opdivo), pembrolizumab (brand name Keytruda) and ipilimumab (brand name Yervoy). Although these medicines work well to treat the cancer, but there have been some reports of people developing side effects in their immune system, which may cause them to get infections, or develop autoimmune diseases.

An autoimmune disease is where the body's immune system attacks a person's own tissues instead of germs and viruses. Rheumatic diseases are autoimmune diseases. This includes many types of inflammatory arthritis – for example, rheumatoid arthritis – as well as other diseases such as sicca syndrome (also called Sjögren's syndrome). People with sicca syndrome have dry eyes and mouth in combination with musculo-skeletal problems.

WHAT DID THE AUTHORS HOPE TO FIND?

The authors hoped to understand which people were likely to develop a rheumatic disease as a result of taking an immunotherapy for their cancer.

WHO WAS STUDIED?

The study included 13 people who were receiving immune checkpoint inhibitors to treat their cancer, and who then developed a new inflammatory arthritis or sicca syndrome. All people were 18 years or older and had been treated with ipilimumab and/or nivolumab for either metastatic melanoma, non-small cell lung cancer (also called NSCLC) or renal cell carcinoma (RCC).

HOW WAS THE STUDY CONDUCTED?

The study was a review of cases seen at one rheumatology clinic.

WHAT WERE THE MAIN FINDINGS?

The authors found that people treated with immune checkpoint inhibitors could develop an inflammatory arthritis that was similar to rheumatoid arthritis. They also could develop sicca symptoms (dry mouth and eyes) similar to Sjogren's syndrome. The people who developed arthritis need to take higher doses of steroids to control their symptoms than would normally be expected. Some people needed other types of medicines as well as steroids to turn down their immune system.

ARE THESE FINDINGS NEW?

Although cases of autoimmune disease have been found before, this is the largest collection of cases of this type. It is also the first study to comprehensively describe laboratory findings, imaging, and people's response to treatment.

ARE THERE ANY LIMITATIONS?

The study was limited by being a case series with a small number of people included. Only people who were referred to the rheumatology clinic were included, which might mean that less severe cases of arthritis were not seen. Also, it was not possible to include all cases as some people were taking part in a clinical trial of the cancer therapy, and it had not yet been published. Finally, the authors were not able to estimate how often inflammatory arthritis developed in people taking immune checkpoint inhibitors.

WHAT DO THE AUTHORS PLAN ON DOING WITH THIS INFORMATION?

The authors plan to study a larger group of patients treated with these drugs to understand how often these conditions develop. They are also planning to do some laboratory studies to help understand why inflammatory arthritis and sicca syndrome are side effects of these types of cancer medicine. It is hoped that this article will help doctors to recognise inflammatory arthritis and sicca syndrome as possible side effects of these types of cancer therapies.

WHAT DOES THIS MEAN FOR ME?

If you are taking an immune checkpoint inhibitor, there is a chance of side effects. If you develop symptoms of a rheumatic disease, your oncologist may refer you to a rheumatologist. Rheumatic diseases can be treated. If you have any concerns about your medicine, you should speak to your doctor.

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