

## Special Article - Pathology Case Reports

# Ochronosis; Toracal and Lumbar Disc Herniation

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## Introduction

Alkaptonuria is a rare inherited autosomal recessive disorder. Incidence is as low as % 0,001. Absence of homogentisic acid oxidase induction causes an increase in HGA accumulation in the body. Ochronosis is black pigmentation in connective tissue. It is formed by the accumulation of homogentisic acid. These changes are related to disc herniation may also cause. It is a rare occurrence in neurosurgery practice. It can be seen all over the spinal region, but mostly the lumbar region is affected. It is usually seen after 3 and 4 decades. We present a case of thoracal and lumbar disc without previous knowledge of alkaptonuria [1-3].

## Case Presentation

A 59-year-old man had a five year history of low back pain with right leg pain and was admitted to our hospital. There was weakness and numbness in the right leg. There has been a very large increase in the pain of the last 20 days. On his neurological examination 3/5 of the right lower extremity muscle strength and 4/5 of the left lower extremity muscle were detected. Magnetic Resonance Imaging (MRI) revealed narrowing of intervertebral disc spaces and disc herniation at T10-11 and L2-3 intervertebral disc level (Figure 1). Patient was operated. During T10-11 and L2-3 discectomy it was realized that the disc material was black (Figure 2). On finding the pathology result compatible with ochronosis, the patient was directed to the rheumatology department after discharge. he was treated and discharged one day after the surgery

## Discussion

Ochronosis was first described by Virchow in 1866 in a 67-year-old male patient. Alcaptonuria is a rare metabolic disease with HGA accumulation; characterized by homogentisic aciduria, arthritis and ochronosis. This arthritis usually occurs third and fourth decade of life. It is manifested with Low back pain. Mostly the lumbar region is affected. In our case, there was also involvement in the thoracic. Although it was generally seen in the 3rd and 4th decades, it was 5th decade in our case. One of the most common findings is an increase in thoracic kyphosis with a decrease of the lumbar lordosis at the end of the disease progression; causing ankylosing spondylitis due to severe degenerative changes in discs and joints.

Patients with low back pain who have extensive disc calcifications on MRI and direct grafis should also be considered for Ochronosis [4-7].



Figure 1: Magnetic Resonance Imaging revealed narrowing of intervertebral disc spaces and disc herniation at T10-11 and L2-3 intervertebral disc level.



Figure 2: The discectomy material was black.

## Conclusion

Early diagnosis with the cause of the progressive nature of the disease and education of the patient are important. Surgical treatment for the disc hernia is highly rescued from the patient's pain.

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