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## Answers

- A1. These abnormalities are incidentally detected remnants of Myodil (also known as Pantopaque), which was an oil-based positive contrast media through the 1980s for myelography, ventriculography, and cisternography.
- A2. These head CTs did not reveal any acute injury of brain resulted after trauma.
- A3. No, these abnormalities were detected incidentally.

#### Discussion

Myodil, also known as pantopaque, was produced and marketed by Glaxo from 1946 to 1988 as a spinal radiographic contrast medium. Myodil, which was an oil-based positive contrast media, was widely used in the past for contrast-dependent studies, such as myelography, ventriculography, and cisternography. But, through the 1980s, many cases were reported that these contrast media had some side effects, such as arachnoid adhesions and cysts, causing spinal cord syrinxes, compression, or nerve root irritation. Because of their adverse effects, oil-based agents became replaced by water-based contrast media (1, 2). Hence, oil-based contrast media-myodil or pantopaque—are absorbed and excreted very slowly from the body; even after years, they can be seen as remnants in imaging studies of the brain or spinal cord, such as CT or MRI (3, 4).

Remnants of myodil can be seen as a high-density mass similar to metallic artifacts or calcifications in the CT study. In the MRI study, due to the oil components of myodil, remnants show high signal intensity on T1-weighted imaging and low signal intensity on T2-weighted imaging. Due to the similar appearance, remnants are misdiagnosed, such as lipoma or hemorrhage (5). In our patients, myodil remnants were seen in their head CTs, and their anamnesis revealed that myelography was performed with pantopaque nearly 3 decades ago.

In conclusion, because of the widely used modern CT and MRI, use of myelography and oil-based contrast agents has decreased

since the 1990s. But, remnants and complications of myodil can still be seen in our clinical practices. Thus, we think that when atypical radiological findings similar to our patients are encountered, physicians should consider that they may be a rare presentation of remnants of myodil.

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**Correspondence to:** Gökhan Aksel; Clinic of Emergency Medicine, Ümraniye Education and Training Hospital, İstanbul, Turkey Phone: +90 505 350 86 90 e-mail: aksel@gokhanaksel.com

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