Ferumoxytol

Since the Food and Drug Administration (FDA) approved ferumoxytol (Feraheme, AMAG Pharmaceuticals, Waltham, MA) to treat iron deficiency anemia in adults with chronic kidney disease (CKD) in 2009, the off label use of this iron oxide nanoparticle compound by clinicians and researchers as a magnetic resonance imaging (MRI) contrast agent has grown rapidly. Ferumoxytol-enhanced imaging is feasible in patients with impaired renal function, a patient population in whom both gadolinium and iodinated contrast agents are contraindicated. Other attractive imaging features of intravenous (IV) ferumoxytol include a prolonged blood pool phase and delayed intracellular uptake. Furthermore, since iron is a naturally occurring element in the body, the administered iron enters the body's natural iron metabolic pathways. Thus, the use of ferumoxytol is not currently associated with concerns regarding long-term deposition, as is the case with brain deposition of gadolinium-containing agents [1) 2) 3) 4)]

see Ferumoxytol magnetic resonance imaging.

1)
Kanda T, Oba H, Toyoda K, Kitajima K, Furui S. Brain gadolinium deposition after administration of gadolinium-based contrast agents. Japanese journal of radiology. 2016;34(1):3–9.
2)
Ramalho J, Semelka RC, AlObaidy M, Ramalho M, Nunes RH, Castillo M. Signal intensity change on unenhanced T1-weighted images in dentate nucleus following gadobenate dimeglumine in patients with and without previous multiple administrations of gadodiamide. European radiology. 2016
3)
Reeder SB, Gulani V. Gadolinium Deposition in the Brain: Do We Know Enough to Change Practice? Radiology. 2016;279(1):323–6.
4)
Stojanov D, Aracki-Trenkic A, Benedeto-Stojanov D. Gadolinium deposition within the dentate nucleus and globus pallidus after repeated administrations of gadolinium-based contrast agents-current status. Neuroradiology. 2016;58(5):433–41.

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