

***Corresponding author**

*F. Chait, Emergency radiology department, ibn sina university hospital, Faculty of Medicine and Pharmacy, Mohammed V University, Rabat, Morocco

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Imaging of Hypoglycemic Encephalopathy

F. Chait*, N. Bahlouli, H. Ramdani, L. Jroundi, FZ. Laamrani

Emergency radiology department, ibn sina university hospital, Faculty of Medicine and Pharmacy, Mohammed V University, Rabat, Morocco

Clinical image

Hypoglycemic encephalopathy is a metabolic disorder secondary to an extremely low blood glucose, It is a common complication in diabetic patients.

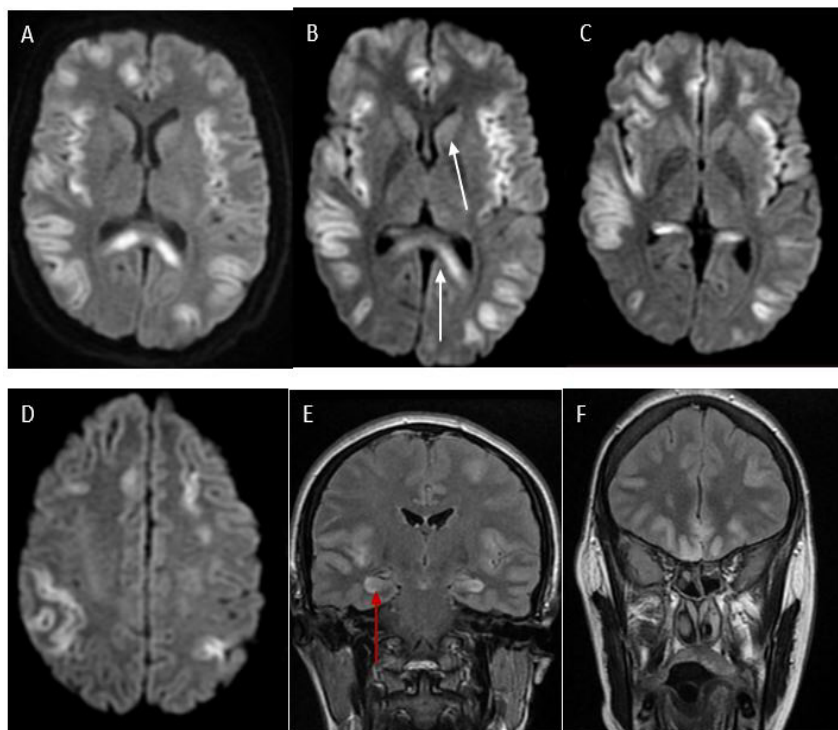
Here we report the case of a 27 year-old woman with hypoglycemic encephalopathy, after injecting herself insulin for suicidal purposes.

Cerebral MRI, especially DWI, can provide valuable information and play an important role for the diagnosis of hypoglycemic encephalopathy.

It confirms the involvement of the grey matter both superficial (cortical) and deep (basal ganglia) with a drop in ADC in the damaged areas testifying to an initially cytotoxic oedema. T2-weighted and Flair sequences show hyperintensity of the caudate nuclei and lenticular nuclei, cerebral cortex, the substantia nigra and the hippocampus .

On the DWI , the lesions are clearly visible and are more easily discernible after having the correct b-value, which is valuable for the early diagnosis of the disease. The thalamus, seems to be regularly spared for an unknown reason.

Declaration of Interests : The authors declare that they have no competing interests.



The images (A to D) are axial sections of DWI sequence, showing symmetrical diffusion restriction of the cortical at level of frontal, parietal, temporal and occipital lobes ,as well as the head of caudate nucleus and the splenium of the corpus callosum (White arrow) .

The images (E and F) are coronal sections of Flair sequences, showing cortical hypersignal at the level of frontal, insular and parietal lobes and also hippocampal (Red arrow).

References

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