

Can we predict onset of tic disorder during methylphenidate treatment? A neuroimaging study

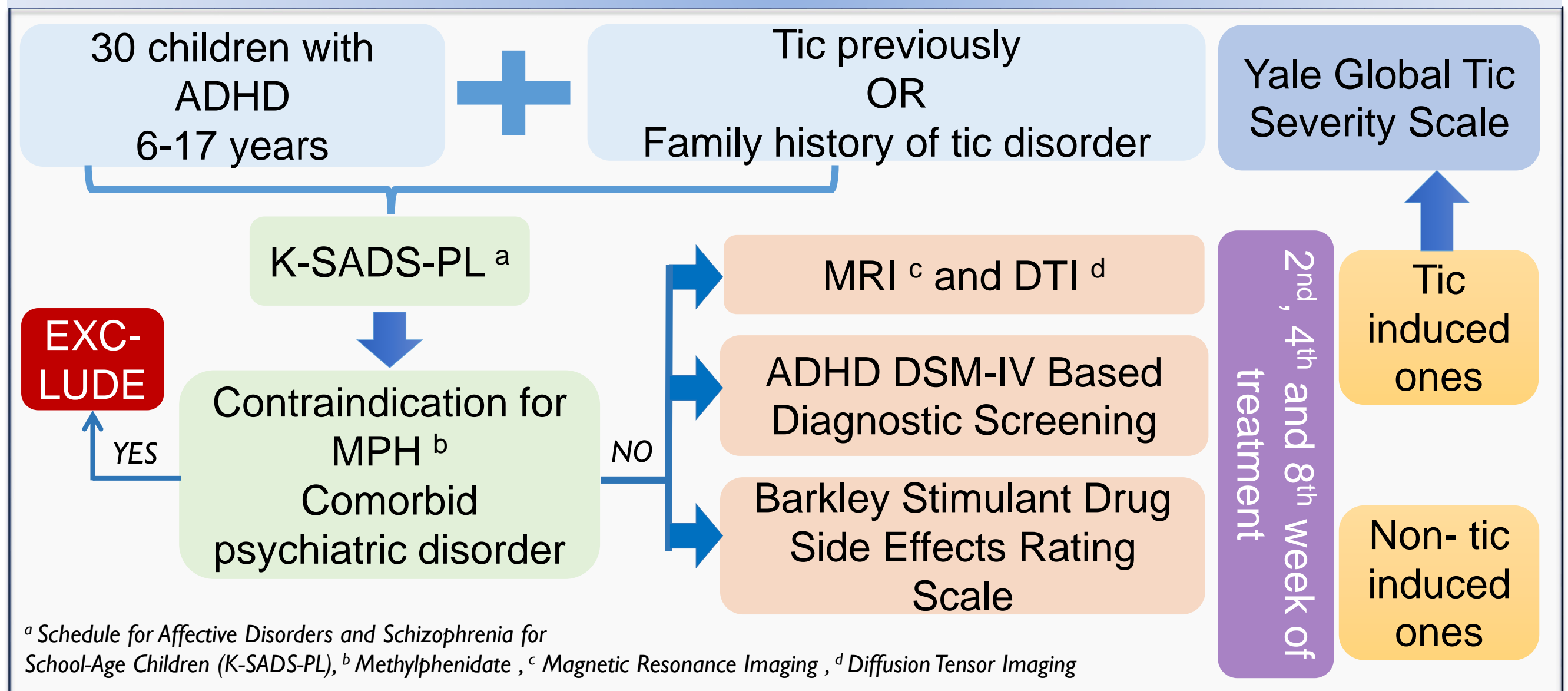


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Purpose

It is aimed to investigate whether there is a difference in volume and fractional anisotropy of basal ganglia between the children with ADHD who had tic disorder after psychostimulant treatment and the children who had not psychostimulant induced tic disorder.

Methodology and Study Design



Results

We could recruit only three patients for our study. Tics appeared merely in one of them (12 years old girl). She had chronic complex motor tics (blinking, pursing her lips, nose wrinkling, shaking her head) which initiated 8 years ago and they were absent for four months ago. Tics appeared within the second week of treatment.

Conclusion

Preliminary results of ongoing study were reported. In line with literature, tics appeared in 1 of 3 children after MPH treatment in our study. [2] After we complete recruitment, we will be able to interpret association between tic occurrence and related brain domains.

[1] Peterson BS, Thomas P, Kane MJ, et al. Basal Ganglia Volumes in Patients With Gilles de la Tourette Syndrome. Arch Gen Psychiatry. 2003;60(4):415.
[2] Erenberg G, Cruse RP, Rothner AD. Gilles de la Tourette's syndrome: effects of stimulant drugs. Neurology. 1985;35(9):1346-1348.