

Tourette Syndrome and Violence: is There a Link?

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In Tourette syndrome (TS) amygdala, frontal striatal pathway and basal ganglia are the organic sites involved (Chase 1986, Moriarty et al, 1997, Segawa, 2003). Interestingly, it has been postulated that aggression has similar neuronal pathway (Sugden in 2006). Serotonin and dopamine neurotransmitter systems have been associated with both TS and aggression (Sugden 2006, Segawa, 2003). This overlap makes one wonder whether TS is linked with violence. The objective of the study to look for a link between TS and violence with evidence based search. A wide literature search was used with OVID-SP exploring articles in Embase, Medline, and Psycinfo online resources was done. The literature review showed how poor impulse in TS could cause social difficulties due to inappropriate behaviours. In one study, 36% of a sample of TS patients showed difficulty in refraining from behaviour which they understood to be dangerous or inappropriate (Cohen, 1992). In another study 45% had difficulties with anger and violence, 17% had difficulties with serious violence. Attention deficit hyperactivity disorder (ADHD) has been well recognized comorbidity of TS and various studies showed 48.8% TS patients have ADHD. ADHD has been linked with aggression, violence and antisocial behaviour, (Retz 2009). Some studies showed evidence that TS is associated with substance misuse; if so this may then indicate possible association with violence. Overall the results showed that the link between TS and violence seems to be present in a minority of TS patients and this link becomes more pronounced with presence of comorbidities such as ADHD and substance misuse.