

Poster presentation

Using rodents for modeling Self-Injurious Behaviour

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Background

Self-injurious behaviour (SIB) is referred to any kind of behaviour that can cause harm to body tissues without the intention of attempting suicide, such as cutting, scraping, burning, biting or hitting. It's also a severe problem in retarded and autistic children and some genetically inherited diseases like Lesch-Nyhan syndrome.

Materials and methods

As it's difficult to study abnormal psychological behaviours in humans because of different or unknown backgrounds, it's not uncommon to have animal models to study disorders in a controlled situation. For SIB the most models used are rodents (rats and mice) though there's been reports of SIB in captive rhesus monkeys. Drugs used to induce this behaviour in rodents are pemoline [1], amphetamine, caffeine [2] & clonidine [3].

Results

Studies show that SIB can be induced in rodents by increasing the levels of dopamine, glutamate [4] and opiates and decreasing serotonin in central nervous system.

Conclusions

Though the mechanisms for SIB are still unknown, it's thought that dopamine has the main role in causing it.

References

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