The use of opiate antagonists for recurrent self-injurious behavior
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Authors' objectives
To review the literature on the use of opiate antagonists in the treatment of self-injurious behaviour.

Searching
MEDLINE was searched from 1966 to 1995 and the bibliographies of the retrieved articles were examined. No search terms were given.

Study selection
Study designs of evaluations included in the review
Case reports, single-subject experimental designs, and observational studies were included.

Specific interventions included in the review
The opiate antagonists were naloxone and naltrexone.

Participants included in the review
Patients displaying self-injurious behaviour (SIB). The review included case-reports on the treatment of developmentally disabled patients, patients with Tourette's syndrome without mental retardation and one woman of normal intelligence with borderline personality disorder, with naloxone. Most of these patients were aged 18 years or less.

The studies using naltrexone include studies on patients who were developmentally disabled or autistic. Just under half of these studies were on young (aged 18 years or less) patients. The rest of the studies included patients up to 67 years.

Outcomes assessed in the review
Changes in SIB were assessed.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the authors performed the selection.

Assessment of study quality
The type of study (degree of blinding and whether placebo-controlled) was listed. However, the differences in study type were not incorporated into the analysis. The authors do not state how the papers were assessed for validity, or how many of the authors performed the validity assessment.

Data extraction
The authors do not state how the data were extracted for the review, or how many of the authors performed the data extraction.

Methods of synthesis
How were the studies combined?
The studies were reviewed narratively. All data were pooled in order to calculate the overall proportion of patients who improved.

How were differences between studies investigated?
Differences between the studies were largely unexplored although there was some narrative examination of the patient subgroups (e.g. ‘profoundly mentally retarded patients’). The differences between the studies in terms of dosage and treatment duration was emphasised.

**Results of the review**

There were 11 case-reports (14 patients) of the effect of naloxone; most of these studies were double-blind and placebo-controlled. There were 31 case-reports (98 patients) of the effect of naltrexone; 54 of these patients were studied under double-blind conditions.

Nine of the 14 patients improved with naloxone administration, with patients at lower dosages showing no change or increase in SIB; in some reports SIB increased before improving. SIB also improved with naltrexone administration in 72 out of 98 patients.

In several studies naltrexone appeared effective up to a maximum of 1.5 mg/kg per day, with a return to baseline rates of SIB at 2.0 mg/kg per day. No hepatic or other significant adverse effects were noted.

**Authors' conclusions**

There was a positive response to treatment in one half of patients treated with naltrexone, with most showing a modest (30 to 50%) reduction in SIB. Complete remission is unusual.

Naltrexone appears to be well tolerated in doses up 2.0 mg/kg per day. Patients who report that their SIB helps them feel better, or who appear to seek out self-injury with little evidence of pain, might be more likely to respond.

**CRD commentary**

The overall effectiveness of these agents is not clearly established by this review; this is not helped by a lack of conclusions in the discussion section. There is a lack of controlled studies in this field, and there is no systematic examination of the validity of the included trials. The search would have benefited from a search of the psychological literature, which may have identified more trials. The side-effects of the treatments have not been fully considered.

**Implications of the review for practice and research**

Controlled trials of the effectiveness of naltrexone in treating SIB are required.

**Bibliographic details**


*PubMedID*

8555746

*DOI*

10.1176/jnp.7.4.437

*Indexing Status*

Subject indexing assigned by NLM

*MeSH*

Adolescent; Adult; Behavior Therapy; Child; Combined Modality Therapy; Female; Humans; Male; Naltrexone /adverse effects /therapeutic use; Narcotic Antagonists /adverse effects /therapeutic use; Recurrence; Self-Injurious Behavior /drug therapy /psychology
AccessionNumber
11995003155

Date bibliographic record published
31/08/1996

Date abstract record published
31/08/1996

Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.